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# What Have the Greeks Done For Modern Civilisation?

The Lowell Lectures of 1908-09

By

John Pentland Mahaffy

C.V.O., D.C.L. (Oxon.), etc.

Of Trinity College, Dublin

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## PREFACE

THESE lectures, delivered in Boston at the invitation of the Curator of the Lowell Institute, in December and January, 1908–9, are now published owing to many requests both from those that heard them and from those that did not. They are an attempt to cover the whole field of Greek influence, not only in the various arts in which such influence is generally realised, but also in those departments of thinking in which moderns arrogate to themselves an unquestioned superiority. Yet it will be found, even in the following necessarily brief and popular sketch, that, as regards *thinking*, the Greeks were as supreme in science as in other departments, and, though they did not discover the powers of steam or electricity, they nevertheless carried out in mechanics works that no modern builder, with all his vaunted control of nature, has yet equalled, and so in other pursuits, not only Greek form, but Greek thought, has been the greatest and the clearest that the world has yet seen.



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And yet I believed that the high honour in which Greek studies were long held had been exchanged for indifference, or even contempt, especially in America, where a hurried education planned for "practical life" was said to be taking the place of the old liberal education intended to breed gentlemen. But I found, during my actual visit to America, that I had been misled as to the completeness of this degradation of Greek. As is usual, the stranger begins by getting false impressions of the country he visits, and can only correct these gradually by detailed experience. There were many symptoms that public opinion in the States is by no means satisfied with the thought of an absolute reign of modern science, or of specialising education at the fancy of the ignorant youth or the more ignorant parent. Even employers in factories are beginning to find out, with that plain good sense which marks the solid core of American society, that young men who receive a liberal education are more intelligent and useful as tradesmen or mechanics than those who have mastered only one subject. The intellectual outlook tells even upon the handicraft of the apprentice.

There is therefore some prospect that the mistakes of the last generation (possibly due to

the influence of Harvard and other universities) will be corrected, and that a proper college education will again replace the bread-and-butter studies in the earlier years of all good courses of training. If such a recovery of sound education takes place, it is impossible that Greek shall not resume its old importance. We now know far more of Hellenic work than did our forefathers. We can vindicate Greek studies in a manner wholly strange to them, had they ever thought a vindication called for. But, on the other hand, the teaching of Greek must be reformed. It must be made a human and lively study, taught like a modern language by dictation and recitation, as well as by written composition and reading of authors. In many English public schools, there has been a fashion not only of teaching the old languages as if they were indeed dead, but of spoiling the teaching of modern languages by copying this mistake. Much of the prejudice against the learning of Greek has been created by this blunder, and by its radiation into kindred studies. But this also I trust will be mended, and we shall have a more intelligent method of teaching all languages as living vehicles of human expression. Among these, the Greek is far the most perfect.

If this little book may help toward this great reformation, it will have amply succeeded in its purpose.

I must not send it out without thanking my many American friends for their sympathy and encouragement. During my visit, everybody seemed ready to hear what I had to say, and in some of the discussions which were the result, notably at Philadelphia, there seemed to be quite a body of opinion in my favour. Two observations are worth making here before I conclude: The American professors of Greek and Latin have exactly the same experience that we have in Ireland regarding the abandonment of Greek while professing to retain Latin. Neither there nor in Ireland have we failed to note the deterioration of Latin teaching, and the conviction grows upon us that a teacher who knows no Greek cannot be a Latin scholar in any real sense.

So much for the boasted retaining of Latin while sacrificing Greek.

The next observation concerns the now fashionable attending of courses in English Literature. In no case during my visit did I hear a literary conversation spring up among these students of English.

They have no doubt admirable professors in

great numbers, specialists on every English poet and prose writer worth naming. But apparently poetry learnt without labour in the mother tongue is not assimilated or appreciated as is the poetry of classical languages, and from them the delight in literature as such spreads into kindred studies. Wherever I cited the poets, or indeed great prose such as the Bible, among the young people who had studied English as a subject for graduation, I found a strange ignorance of what ought to have been most familiar. I was almost driven to believe the paradox that without a classical education even the proper appreciation of English literature is unusual.

J. P. M.

On board S. S. *Celtic*, January 20, 1909.

# CONTENTS


| | | PAGE |
|---|---|---|
| PREFACE | . . . . . | ii |
| I. | INTRODUCTORY . . . . . | 1 |
| II. | GREEK POETRY . . . . . | 31 |
| III. | GREEK PROSE . . . . . | 65 |
| IV. | GREEK ART—I: ARCHITECTURE AND SCULPTURE . . . . . | 98 |
| V. | GREEK ART—II: PAINTING AND MUSIC . | 125 |
| VI. | SCIENCE: GRAMMAR—LOGIC—MATHEMATICS—MEDICINE . . . . | 147 |
| VII. | POLITICS—SOCIOLOGY—LAW . . | 181 |
| VIII. | HIGHER THINKING, PHILOSOPHY, SPECULATIVE AND PRACTICAL THEOLOGY . | 213 |

# What Have the Greeks Done for Modern Civilisation?

## I

### INTRODUCTORY

AFTER more than half a century spent on the study of old Greek life in its art, politics, literature, philosophy, and science, I gladly adopt this ample and dignified occasion to give a review of what I have learned to this audience, whose intellectual standard, and whose sympathy with the work of a student, are recognised throughout the world. It is a great honour for any man from Europe to speak on this platform, but it implies, in consequence, a grave responsibility, and it is impossible to stand before you here without some feeling of awe, for I feel I am addressing not merely this most fastidious audience, or even the larger American public, with whom I gladly claim an old acquaintance through my books, but

the great congregation of the educated classes in many and diverse lands.

I do not suppose that any of you will be disposed to dispute the fact (which the very title of these lectures presupposes)—that modern civilisation, from various points of view, owes a great debt to the old Greeks. If there be any such sceptic here, I trust he will be converted in the course of my conversation with him from this platform. But even to those who readily admit the fact, explicit proofs of it may not be useless, for they will show you the reasons that have long since persuaded the world of teachers to make Greek essential in a liberal education. Assuming, however, for the present the main fact, I think I shall begin this discourse most profitably by discussing the supposed causes which gave the Greeks this curious pre-eminence. It is perhaps, to use familiar words, putting the cart before the horse, but you need hardly be reminded that if in logic we often do not explain a statement until we have established its truth, in time the order is different. The causes of every great result are hidden in past ages, shrouded by the mists of antiquity, covered with the cloud of oblivion, so that in the present case the consideration of the prehistoric causes of the greatness of the Greek intellect may well

precede the evidence of that greatness, which we gather by the lamp, often dim, of history, if not by the searchlight of archæological science. Though this subject cannot but prove dull to some of you, I shall do my best to relieve the dulness by illustrations or even by digressions into kindred fields of knowledge.

I know that there are two considerations which, in the minds of people who are easily satisfied, pass for an adequate account of this extraordinary genius of the Greeks. It is usual, especially among those who will not take the trouble to learn Greek, to say that it was really through Rome that the greatness of the Hellenic race was created. Rome conquered the Western world with her roads, her armies, her laws, her language, and impressed even on barbarians the culture which she had herself adopted and developed. The Latin races which were in the van of civilisation up to the seventeenth century were the daughters of Rome and had little direct teaching from Greece.

All this is perfectly true, but it only moves the problem one step backward. Assuming that the Romans were the carriers of enlightenment to the North and West of Europe, why did they depend so completely on Greek teaching; why did they one and all confess that this was the unique source

of their progress? They came in due time into contact with the culture of Carthage, of Syria, of Egypt. But the splendours of these countries were never to the Romans more than mere curiosities, whereas Greek culture was the very breath of their intellectual life. Virgil, a very great poet, frames every one of his works on Greek models, and translates even from second-rate Greek work. Horace, a very great artist, prides himself on having made Greek lyrics at home in his country, and Lucretius, whose reputation for originality among modern critics is mainly due to the total loss of the original which he copied, himself claims as his main credit that he had ventured to reproduce a yet uncopied species of Greek poetry. It is hard to conceive a more complete case made out for the unparalleled influence of Hellenic genius upon proud and dominant neighbours. I will merely remind you how a fresh wave of Greek influence, coming into Romanised Europe in the fifteenth century, caused such a revolution in literature and art as to be called a new birth (Renascence).

Let us turn to a widely different kind of explanation, which is wont to be set forth at the opening of most modern histories of Greece, as a *vera causa* to account for a wonderful and exceptional result.

This theory is the echo of the famous opening of Buckle's great book on Civilisation, wherein it is asserted that man is the creature of external circumstances and that these determine not only his physical, but his intellectual increase. In particular, the greatness of Egypt and its early victory over the obstacles of nature are attributed to the heat and moisture of the climate; and so we are told that the temperate airs of the Ægean, the multitude of its islands, its indented coast, its fiords, its broken outlines, and varied scenery —these are such that the people living among them would naturally develop the qualities which have given the primacy in its turn to Greece. Such conclusions are based upon very superficial and inaccurate observation. It was assumed that Egypt had been necessarily an unity, owing to the isolation of its land from neighbours, and to the fact that its great high-road, the Nile, traversed the whole country. We now know this to be false, and that the reduction of Egypt first to two, and then to one state was not accomplished till after ages of separation among its *nomes*, and was accomplished not by natural necessity but by the genius of a conqueror. As regards the physical peculiarities of that country, they are all to be found again on the Indus, with its affluents from

far inland Alps bringing down a periodical inundation, with its great delta spreading from Hyderabad, with its long course through a desert which affords it not a rivulet of increase: yet the peoples of the Indus have never thriven and waxed great like the Egyptians. So far as our evidence leads us, we may assert that had the Egyptians been settled on the Indus, and the population of the Indus on the Nile, the respective parts played by these rivers in civilisation would have been reversed. I am equally convinced that had the Greek race been settled on the Adriatic, with many fiords and islands, and over against Italy, instead of Asia Minor, or on the west coast of Italy, with its headlands and bays, its great and fruitful islands within sight,—these circumstances would have been equally favourable to their genius, whereas they were not sufficient to raise the Corsicans and Sardinians, perhaps the best situated of all, from a very low level among nations. I will not cite Sicily, drawn from its obscurity by the Greeks, for they were already great in the scale of nations when they transformed that splendid island, long undistinguished under Sikels, Sicans, Phœnicians, into a brilliant province of Hellenedom. It may perhaps occur to some of you that the special qualities of the race came from its

being a purer branch of the great Aryan stock than its brethren; that it was pre-eminently Japhet dwelling in the tents of Shem, unalloyed with the dross of lower races, whose animalism has survived in the defects of other Aryan stocks that dwelt among them. But the very opposite seems to be the case. The more we study the Greek language, the more we are impressed with the number of strange roots, which point to a non-Aryan origin. Many of the words in commonest use, such as βασιλεύς and τύραννος, are not to be explained from Aryan roots, and anyone who has studied such place-names as Tiryns, Assos, and their congeners will fairly conclude that the Greeks were not purer from admixture than the Slavs or the Celts.[1] After all that has been adduced, therefore, to account for the intellectual supremacy of the Greeks, we are compelled to fall back on the ultimate fact—which has not been explained—that they possessed a national genius denied to their brethren and their neighbours. It is as yet an ultimate fact that the human race is not pro-

[1] The recent book of August Fick upon the place-names in Greek lands shows that the great majority are not Greek, and this is particularly the case with Attica, the purest home of culture, showing that even here there survived a large indigenous population. This is the new signification of the Athenian claim to be *autochthonous*, or native children of the soil.

moted, except in numbers, by heat and moisture. Some have been higher from the earliest moment that we can observe, or infer, their conditions. Others have remained lower in spite of the most favourable circumstances. This is a riddle which no historian has yet solved. But is it stranger, I ask, than the sporadic and unaccountable appearance, in a settled and known society, of individual genius? This is the parallel case wherewith I cannot explain, but only vindicate my position. Is it stranger that one nation should emerge into history with exceptional gifts than that there emerges into life, according to no law that we know, individual genius? If you look back at the family history of those that have made or upset empires, that have added new domains to science, that have created the poetry of the world, you will find no law or reason to explain their sporadic appearance, like that of brilliant meteors across the orderly stars of the sky. They generally come from undistinguished parents; they have undistinguished brothers and sisters; they do not transmit their great qualities, save in some rare occasions, as if to show that there is even here no prohibitive law. They may be single, or eldest, or youngest, children, or in the middle of a large family. They need not be noted for physical

health. There was once a posthumous and yet prematurely born infant, so puny and wretched that, but for the sorrows of the widowed mother, little pains would have been taken to keep it alive, for it was her first born. Charitable neighbours nursed it with amazing care, and so saved its miserable spark of life from extinction. After a delicate and monotonous youth, the child went to Cambridge; he was known in later years as Sir Isaac Newton.

But if, so long as civilised societies cloak the first beginnings of individual human life in mystery, we can only refer the sporadic occurrence of genius to chance, is it any wonder, after the lapse of ages has covered with its mists the childhood of nations, that we should be unable to give any better answer to explain the occurrence of national genius in one race, while its brothers and sisters are not above the vulgar average? On one thing only I insist: let us not deny a great fact because we cannot explain it.

Assuming then as ultimate that one nation may be gifted above the rest with genius, let us consider in what the pre-eminence consists. And here again we shall be aided by the analogy of individual genius. The first and most superficial answer is that genius is original, that it strikes out new

ideas, new solutions of problems, new lines of research, while the average man can only learn what others have already discovered for him. But a deeper and more careful inquiry reveals to us that absolutely new ideas are of the very rarest occurrence; almost the whole work of human genius consists in assimilating what others have thought, in combining what others have imagined separate, in recasting the form of their thought, and so producing what seems a perfectly new thing, and yet is only the old under a new aspect. No instance of this is more signal than that of a great composer in music. The gift of original melody, as it is called, is rare and precious. The possessor of it is justly considered a genius. But no melody could possibly speak to us except a combination of perfectly well known elements. The only originality is in their assimilation and reproduction.

If then we admit that the assimilation of what others have done is a most important feature in genius, we can affirm not only that the Greeks were gifted with this power, but we can go further and say that they settled in a part of the world eminently suited to suggest new ideas and to afford scope for all the combinations which their genius prompted them to make. I have already ex-

plained how widely I differ from those who have laid great stress on the characteristics of the country occupied by this race. External nature was the very thing that the Greeks, all through their great history, felt less keenly than we should have expected. Their want of a sense of the picturesque in nature has even been cited as a notable defect. But, though repudiating all this kind of argument, I am quite ready for widely different reasons to lay much weight on the geographical position of Greece. It is an argument which you will not find, I think, in your histories. This people established their home on the confines of two very diverse civilisations, so that they were able to assimilate ideas from both and to weave them into a fabric of their own.

Concerning the influences coming from the south-east, there was never any doubt. All the legends about Cadmus, Danaus, and the like assert the importation of the culture of Phœnicia and of Egypt into Greece. The same thing is said of the empire of Minos of Crete, which is now found to have been a reality, and from which a very early culture passed through the Ægean Islands to the coasts of Greece. Whether the early graphic systems used at Cnossos made their way to Mycenæ or Tiryns we have no

evidence to determine. Most probably they did, and these may have been the "dire symbols" which Homer mentions as sent with Bellerophon to seal his fate with the Lycian king. But in any case the Phœnician alphabet came in: the use of engraved seals was carried by the same traders from Babylon; the ostrich eggs, the ivory from Africa, the designs on many objects, tell no uncertain tale. For all that, the earliest art of Greece —I will not call it Hellenic as yet—is not Oriental but European, and with features of its own. And this need not be referred to its originality; far more probably was it caused by assimilating another kind of culture, which had features of its own and which can be shown to have had its influence on Mycenæan art. This civilisation dwelt in central Europe and came from the north to Greece. It has been called Keltic, it has been called Pelasgian; we find it in tombs, and in raths even as far as Ireland. It was from this source that came the fancy for Baltic amber as an ornament—a thing as strange in Greece as the ostrich egg. From here too came the shape of early bronze weapons, probably the habit of burying the dead in beehive tombs; actually many of the patterns used for ornament on tools and weapons. And who can tell how much more

filtered in from this source, which the old Greeks called Pelasgian? Thus the Hellenic race was on the verge of two kinds of culture, and created from both that distinct type which ultimately became the most perfect in the world.

The genius for assimilating might seem to imply a collateral weakness—the danger of absorption or degeneration into the nations whose ideas are adopted and developed. There are cases in the history of man where a conquered race has abandoned its language and religion and adopted those of its conquerors. There are other cases where the conqueror has been absorbed and the subject race has reasserted itself in spite of dominant language and legislation intended to secure its ultimate absorption. It is one of the salient features of the Hellenic race that, though very receptive of foreign ideas, though always ready to profit by the discoveries of neighbours, it never abandoned its primacy in type, and was never absorbed into any other population, except perhaps in isolated cases and after centuries of separation from the mother stock. The Eretrians whom Darius brought as prisoners to Asia and settled in the rich fields of Babylonia were doubtless in the long run absorbed by the surrounding nationalities, but they were still recognisable when Alexander con-

quered his Empire nearly two hundred years later, and possibly they too may have kept up the affecting custom of the people of Posidonia (Pæstum in Italy) at the other extremity of the civilised world, who were indeed, as Strabo tells us, centuries later, barbarised out and out by the Samnites, but who nevertheless still met once a year to lament their fate, and to deplore their loss of Hellenic life. Apart from these few and small exceptions, this race has absolutely refused to be absorbed by any other, however civilised, however dominant, and has remained the same in language and in characteristics from the days when Homer composed for the Achæan chiefs, down to this day, when every scholar or student looks upon Athens as the goal of his pilgrimage.

The permanence of the Greek language is a great and striking evidence. There was never, I suppose, a generation of Greeks from the 8th century B.C. to the 20th A.D. which did not understand Homer; but if you are disposed to ascribe this to sentimental causes, then I say that the earliest Attic prose differs from the Attic prose of to-day so little as to afford us an unique example of persistency. Let me state it in this way: Herodotus, if you recalled him from his grave and put a Greek newspaper of to-day into

his hands, would at first find the type novel, but would presently recognise in it his own alphabet. He would then discover a dialect of his Greek, as he heard it at Athens, and though he would doubtless call it very vulgar, and even barbarised, he would in a day or two read it quite fluently. So far as my knowledge goes, you will find nothing like this in Europe.

Turning to persistence of characteristics, it is superfluous for me to expound to you this topic at any length, for in the book which forms the basis of the old acquaintance between you and me, I mean my *Social Life in Greece*, the main thesis, then, but now no longer, a paradox, was that, though the classical Greeks did great intellectual and artistic work which their descendants could not attempt to rival, yet the moral features of the Homeric, the Alcaic, the Pindaric, the Platonic, the Xenophontic, the Demosthenic Greek were much the same as those of our friends who are now laying claim to Macedonia. There is the same cleverness, not without a special delight in overreaching an opponent, the same diligence, the same genuine patriotism, but also the same undying jealousy of the success of others, the same want of spirituality in religion, the same light esteem

for veracity. The models of Phidias and Polycletus, of Scopas and Praxiteles, were doubtless to be found in real life[1]; so were the characters of Plato's *Dialogues*, and in this consisted the genius of their art and their literature, that they apprehended and perpetuated the ideal, while the average man and average society in Greece formed a standard of cultivated society, high, but by no means perfect. I only mention their average qualities in order to emphasise the fact that I do not stand before you a pedant seeing nothing but the greatness of his favourite study, but as a plain man estimating the history of the past in the light of common-sense.

Yet this is not easy when we stand face to face with the wonderful performances of this undying race. What have the Greeks not accomplished on the stage of the world's history since they accepted the heritage of the older and richer civilisations? First they dominated and so far absorbed the pre-existing population as to feel themselves the only possessors of the country.

[1] The readers of my *Rambles and Studies in Greece* will remember how I was once shipwrecked in the very harbour of Ægina, and compelled to seek hospitality in a modest private house. When I saw the woman of the house in the morning, by the light of day, I shouted to my companions that one of the figures of the Parthenon had walked into the room. The splendid type was there in its perfection.

Some of them even boasted, and without raising any controversy, that they were indigenous to that soil. Then they spread themselves over all the Mediterranean coast, beginning with Asia Minor, where they collided with the successive empires of Mesopotamia. They went to Italy and Sicily, which became Greek lands, so far as they were civilised, and then they successfully resisted the great effort of the Persian Empire to make them a subject province. Even their Asiatic brethren, who did fall under Persian sway for several generations, never lost their nationality, nor could they be said to have resumed it again when the Persian Empire fell under Macedonian sway. When the Hellenic nationality came to dominate the kingdoms of Macedonia, hither Asia, and Egypt, and even when the Romans supervened, who treated it first with respect, presently with contempt, these arrogant conquerors could never shake off the spiritual domination of Greek literature, Greek philosophy, Greek art, and Greek urbanity. Nay, so imperishable was the Greek influence that it caused a new boundary line to be drawn between East and West, and founded on the old Greek Byzantium a new capital, where Hellenic refinement and Hellenic art were still to all the ruder Western

world the acme of dignity and of splendour. Even when this magnificence had been plundered by barbarous crusaders, and again by less barbarous Turks, the fugitive handful of learned Greeks, with their immortal heritage of letters, lit up an intellectual flame in Western Europe that has never since been quenched.

This last great revival by means of the Greeks is, I think, peculiarly instructive to us to-day. For nothing can show more clearly, or in a larger example, how different is the effect of second-hand or traditional knowledge from that of direct contact with the originals. It was no doubt held in the later Roman Empire, and in the early Middle Ages, that all the value of Hellenic culture had passed into Roman life, that Roman law, Roman architecture, Roman organisation were far more perfect than those of their teachers. Even the latest bloom of Greek architecture, that Byzantine style which is still living in the unapproachable St. Sophia of Constantinople, had been carried into Italy, France, Germany, and England, where, under the name of decorated Norman, it holds its place of honour in our church architecture. St. Mark's at Venice is the richest because it is a decadent example of that Greek style, and so other Latin adaptations of Greek were supposed to

afford all the benefits of the originals; nay, in one case—that of the Latin Vulgate—Saint Jerome went so far as to compare his version, with the Greek and Hebrew originals written on each side of it, to Christ crucified between the two thieves. There were Greek statues and Greek temples in plenty to copy. Aristotle, confessedly the greatest and most encyclopedic of Greek philosophers, could be had in a Latin translation and narrowly escaped being canonised as a Latin saint. Was not Virgil far deeper and more artistic than Homer? Was not the *Dies iræ* far grander in sound, as well as in sense, than the trivialities of Horace or Ovid? So the Western world became Latin, and men were content with the echoes of Greek in their Roman culture.

But when the real thing came to them again, as it were by accident, mark the sudden and astonishing change. It was at once discovered that the Romanised culture of previous centuries had degenerated from the nobler types, that new influences from the north had in architecture and in art altered its purity; that the gloomy splendour of Dante, the mightiest outcome of the Middle Ages, had put out the cheerfulness and light of Greek life, even as Virgil understood them, with a cruel and relentless creed. With the return of Hellenic

serenity, there was no doubt much irreligion and paganism associated, but even to that point a revolt against the spiritual tyranny of the Roman Church cannot be regretted by those who refuse to believe that men can only be kept from crime by threatening them with greater crime—I mean the infliction of eternal torture upon any sentient being. The Gothic fane was no doubt the ideal gloom wherein to worship a relentless God and his tortured Christ; the Renaissance palace was a place of light and gladness, wherein men could read with amazement the epic of Homer, the tragedy of Æschylus, the comedy of Aristophanes, and learn from them what human culture had once attained.

And so Greek studies resumed their place as the noblest part of a liberal education. We got to know and appreciate Greek letters deeply and thoroughly as no Roman had ever known them; we got to analyse and understand Greek logic and philosophy and what is still more subtle, the delicacies of Greek art. We began to add to the treasures unearthed for us by the Renaissance, by probing for buried temples in Greece, and searching the sands of Egypt for new texts. The culture of the nineteenth century may fairly be called a culture that owes its greatness largely to

a thorough appreciation of the unique excellence of classical Greek work. Never was I more impressed with this fact than in visiting, three or four years ago, a little collection of old Greek fragments gathered from private owners, and exhibited by the Burlington Art Club in London. They were small things, bronze statuettes, busts, ornaments, vases, but no intelligent man could avoid the strong and instant conviction that all was essentially patrician art in the highest sense. There was not a plebeian note in the whole exhibition.

These things being so, it seemed to men brought up as I have been, that the supremacy of Greek studies, especially for the education of the rising generation, was a fact that no man could contest.

Yet, strange to say, within the last twenty years, and possibly due to the reaction of American influences upon Europe, the tide has turned and the great flow of Greek studies is being succeeded by an ebb. Higher education—formerly and indeed in the truest sense always—an aristocratic privilege, is now to be the right of the democracy, which has no time for it, and all of us, poor and rich, workers for our bread and those whose bread is provided, are to pursue the same ends, and

attain the same cultivation. Need I add that the domain of modern science is so enlarged as to demand a high place in the instruction of those who will presently earn their living by some of its applications? Thus the program has been enlarged and diversified beyond the capacity of any learner, and we begin to think what can best be sacrificed in order to save the rest. The advocates of modern science naturally set themselves against what they are pleased to call the dead languages, and so, as Greek seemed more remote to them, because of its strange alphabet, they have so far prevailed as to get rid, from a vast number of schools, of the study of that language. Even in the universities of Europe there is an irresistible tendency to make it a voluntary subject of study. The innovators, most of whom are ignorant in any proper sense both of Greek and Latin, still profess a great respect for Latin and loudly assert its importance even in modern education. But do not be deceived. The day will come shortly when the same attack will be directed against the second "dead language," as they call it, and we shall be expected to throw out another member of our spiritual family to the wolves. For the attack is made in total ignorance of the relative value of the topics assailed. Anyone with the smallest insight

into the matter knows full well that the loss of Latin is as nothing compared to that of Greek. I am not going to argue that question before the present audience. If at least three quarters of the good we get from Latin is because Latin civilisation is based on Greek, is it not infinitely better to study the great original than any copy, however successful? And this brings us to the point for the sake of which I have made an apparent digression.

Quite apart from the scientists (a very plebeian, but expressive, modern term) who pretend that Latin is sufficient for the department of language or the study of grammar, or of ancient history, we hear a great many, both in England and in America, who are really fond of higher cultivation, who feel obscurely that it is from Greek that such cultivation comes, and who long to obtain from it what they find lacking in modern refinement. But they strive to do this merely through second-hand sources. They have recourse to English translations and English commentaries and to lectures like the present, in order to fill up the gap which they feel in their own early training. Now I will not deny that modern translations are far more faithful than those of more independent imitators, who were not afraid to colour Greek art with hues from their own palette. I will not deny

that the skill of the photographer has reproduced for us the outlines of buildings and statues far more accurately than the best of painters, albeit Turner's conception of Pæstum (for example) is truer in its own way than all the photographs ever taken of that temple. But this brings me to state a somewhat subtle truth, of the greatest import in the present context: a great original is generally susceptible of divers interpretations, whereas a copy, however excellent, seldom gives us more than one; so that, while the former is eminently suggestive, the latter limits our appreciation. The copy of a copy, in law worthless, is so also in matters of art. In each reproduction something is lost, and remember that the more minutely careful the copying, the more slavish is the work likely to be. I know that there are such things as copies greater than their originals. That is true of the Gospels in our English Bible; it is also true of those portions of Virgil's *Georgics* which are translated from Aratus. But these rare exceptions do not invalidate the general truth of the principle I have enounced. And when even Virgil, probably the most competent translator that ever lived, came to deal with a master like Theocritus, how feeble the result! I may safely say that if we had no knowledge of Theocritus save through

Virgil's *Eclogues*, he would never have ranked as more than a third-rate poet with us.

The plain deduction is this: get at the originals at all cost. Do not be satisfied with essays, or dissertations, or commentaries. Go and see the originals, unlock the secrets of the tongue in which they were first presented, and then there will open upon you such a Renaissance as dawned upon the astonied humanists of the 15th century. The main use of such a lecture as that which I am now delivering is that you should be discontented with it, and should desire to pass from the illustration, the commentary, the appreciation, to a direct study of the great originals. Such a course may indeed be impracticable for many of you, who in middle life cannot turn aside to the labour of acquiring another language; for the mastering of a language is always an arduous task, and all the more so as we advance in years. But if we cannot ourselves learn, this generation ought at least to stimulate and direct the next. For I fear that the present knowledge of Greek in this country is confined to a small minority, while there is still a great majority who have some ambition to be really cultivated. I remember some years ago undertaking to teach a class at Chautauqua the *Alcestis* of Euripides. The difficulty that con-

fronted me was that a score of Greek texts of the play were not forthcoming, and that even in New York they were not found without search and delay. The Greek masterpieces share indeed this quality with other examples of perfect art, that even a copy is well worth having, and so the many excellent translations from the Greek which you have in all your libraries, are by no means to be despised. But if you can attain the originals, and master them, the translations, even if they have helped you in this task, lose all their value. I remember seeing in Mr. Gladstone's library at Hawarden a whole section of his great accomodation for books devoted to translations of the *Iliad* into many languages. There were scores, perhaps hundreds, of versions in English, French, German, Italian, Spanish, Danish, Norwegian, Russian, Hindustani, and many other tongues, sent to him by the translators as tributes of esteem for his own Homeric studies. I asked him did he ever open any of them? He said, "No; all the time I can spare I devote to studying the great originals." But was there ever a clearer demonstration than these myriad translations of the greatness of a literary masterpiece? Even when there are many excellent versions already published in their own language men will not be content with these efforts,

but will ever attempt again the fascinating, never ending, never convincing task. You could tell, without knowing any tongue but English, that there are four supreme poems which have exercised a fascination over men that never grows old. They are the *Iliad* of Homer, the *Agamemnon* of Æschylus, the *Inferno* of Dante, the *Faust* of Goethe. Two of these are Greek; but note also that, while we could find in Greek several rivals[1] which are of hardly less importance and by various poets, there is neither in German nor in Italian any poem that can for one moment compare with the supreme pieces I have named. So pre-eminent are the Greeks in literature. Their other art has not survived save in ruins or fragments. But ask any real specialist, such as the late Mr. Penrose, or Dr. Dörpfeld, what place the best Greek architecture holds in the buildings of the world, and he will tell you that never again can anything equal to the Parthenon at Athens be constructed. The huge temple at Karnak in Egypt, the marvellous church of Justinian at Constantinople, the lovely cathedral of Rheims are probably the

[1] The *Odyssey* of Homer, the two tragedies on Œdipus of Sophocles, the *Birds and Frogs* of Aristophanes, the Pythian odes of Pindar, not to speak of smaller gems such as the scraps of Sappho and Simonides, the Idylls of Theocritus.

best specimens of perfection in building which we possess, yet the Parthenon, with its apparent simplicity, shows a subtle depth of artistic knowledge which justifies us in calling it the finest of earthly buildings. Need I say one word of Greek supremacy in other arts here, seeing that the details must form the subject of subsequent lectures?

The danger I see before this generation is that which came upon the Roman world insensibly and which resulted in a decadence not arrested till it sank into the night of the dark ages. The later empire was content to take Greek art and Greek letters at second hand, and to substitute Latin culture for the models which had educated their greatest masters. But as I have already told you the copy had not the life of the original. So we too, with all our science, with our increase of material knowledge and our restless running to and fro, may sink into an ugly, tame, joyless conglomeration of societies, for whom new discoveries supply hosts of new conveniences, but no return to the happiness and the contentment of a simpler age. Our purblind toothless children may have their congenital defects vamped up by science, and without it we should indeed be stranded upon the reefs of despair. But happiness does not lie here,

no, nor in motors, nor in turbines, nor in wireless messages across the globe, nor in daily newspapers full of inextricable fact and falsehood.

I cannot believe that the civilised world will remain satisfied with this dark outlook,—the monopoly of these factories of material discovery, where furnace and electric light replace the glorious rays of the Sun-God worshipped by the Greeks. There has generally been a great power of recovery in our race at large; and periods of decay have been followed by periods not only of renascence but of rejuvenescence. At all epochs when the world grew dull and desponding and the times were out of joint, we have the mystical tendency, the inclination to brush aside human joys and cares and to fix the mind on the Eternal, on the ineffable delights of communion with the Spirit of the Universe. That this tendency is alive even in modern America, cannot but be obvious to those who have studied the pathology of so-called Christian Science. The other tendency is the humanist, that which seeks to recover for us the joys and beauties of life, enhanced by art and protected by the refinement of a sound education. This was the aspect of human happiness which is most perfectly represented, so far as the world has yet run, by the Greeks, and hence the careful

and minute study of their life must always appeal to those who desire the æsthetic reformation of modern society. Once and again the Greeks have exercised this vast and beneficent influence; is it vain to hope that even still it is not exhausted, but potent to cure the ills of man? Peradventure, the prophecy of our great and most Hellenic of poets may yet come true, with a fulfilment wider and deeper than even his large vision could compass:—

A brighter Hellas rears its mountains, from waves
serener far;
A new Peneus rolls his fountains against the morning
star.
Where fairer Tempes bloom, there sleep
Young Cyclads on a sunnier deep!

## II

### GREEK POETRY

IN coming before you to-day to treat of the influence of Greek poetry on the modern world, I feel under a special advantage, which is also a disadvantage. Many of you will know that two volumes of my *History of Greek Literature* are devoted to Greek poetry, and those of you who have read them must already be familiar with my treatment of the authors and their works in detail. To such of you, there can be no difficulty in following the course of the present lecture. But on the other hand, it is hard for me to give to such hearers new material, seeing that I have already done my best in two volumes to satisfy their curiosity. To those that are not familiar with the subject, there is the disadvantage, in hearing a man whose intimacy with the subject is of such long standing, that he may allude to things as obvious which to his audience are not so, being beyond the bounds of their ordinary reading. But I may very possibly be underrating the cultivation of this audi-

ence, which is said to be on a very different level from that of any similar audience in England. If so, you, like all competent critics, in contrast to the vulgar and the ignorant, will appreciate the difficulties of my task and will judge it with due allowance for these difficulties.

It is obviously my first duty to-day to put before you the *general* features of Greek poetry which have made it a model for succeeding ages and nations. Then I shall proceed, with as much detail as time permits, to give instances of the effects, direct or indirect, of Greek poetry on the poetry of English-speaking nations. You will find that the features which are really the most important are not the obvious features, and hardly those which we might name if we spoke hastily, or at random. The chiefest and most remarkable, which permeates every Greek poet from Homer to Theocritus, is that their work is carefully studied, and in no sense the mere spontaneous outpouring of the human heart. "I lisped in numbers, for the numbers came," said, as a matter of pride, a very artificial poet. Nothing would seem less worthy of it to a Greek poet. He always despised what we call an untutored genius. We hear talk indeed of divine madness and of the inspiration of the Muses, but so far as we know, they never inspired

an ignorant man, and never taught an educated man to violate the traditions of his school. This studied work comes before us in its full artificiality in the Homeric poems. It is more than doubtful whether such a language was ever spoken. It is full of strange forms, and the mixed dialect, sometimes even to us ungrammatical, was the dialect invented or perfected by a school of bards who did not profess to reproduce ordinary speech, but something far higher and better, which only the educated poet could compose. And when I use the term artificial, which has come in modern English to signify something contrasted with natural, and therefore inferior,[1] I must say a word in explanation of my meaning.

It is not the proper province of art to attain to a perfect representation of nature, but a representation of perfect nature. For example, the more the art of sculpture developed in Greece, the more they attained to the representation of a natural but an ideally beautiful figure, such as the Hermes of Praxiteles. So the last triumph of a great actor is to reproduce perfectly human nature in its general

[1] Of course this common inference may be quite mistaken. Artificial things are often a real and great improvement on nature.

features, if not in its ideal features, and so the philosopher exclaims in wonder at the plays of Menander, "O Menander and human life, which of you has copied the other?" But if anyone imagines that art consists merely in photographing vulgar everyday life, he can easily lapse into absurdity. All our habits, so far as they are civilised, depart from mere nature and employ artifice to conceal or improve it. If any of you came here in purely natural attire, imagine the scene! I believe such things were attempted in the wild society of Paris in the heyday of the great Revolution, but even then their attire, though inferior in quantity, was in quality not less artificial than the opinions of the wearers.

It follows from these considerations that Greek poetry was always developed in schools possessing fixed traditions, and following strict laws both in metre and in diction. If any man thought to break loose from these restrictions, and write in a manner wholly free and unchecked, he would get no hearing in Greece. Such a phenomenon, for example, as your Walt Whitman would have been impossible, or at least we should never have heard of it.

It is indeed quite true that this does not exclude the rise of new schools of thought and new modes

of expression. When epic poetry was exhausted new sorts of poetry arose; when these proved insufficient there was still further development, but all this is to be accounted for with adherence to law and tradition of some kind. I will take the last and therefore the most obvious case first. We have in Theocritus, the latest bloom of pure Greek poetry, bucolic scenes and pastoral language which were long thought to be the mere echo of the primitive shepherds who fed their flocks in the uplands of Sicily. We know better now. Theocritus was a learned man, full of literary jealousies, who wrote in the sultry atmosphere of the university of Alexandria and at the highly artificial court of the second Ptolemy. He was probably as remote from what we call simple human nature as any modern American could be. But he was a great literary artist, and he felt that while all the other schools of poetry had gradually lost their contact with real life, and were becoming obtrusively artificial and outworn in public estimation, there was still a vein of folk-song, in scenery contrasting utterly with the crowded sand-hills of Alexandria, which might, if treated with delicate art, appeal once more to the sympathy of a weary and decadent society. No doubt there were plenty of pedants in Alexandria, who

despised this return to homely and common life, with its vulgar passions, just as the great French critics repudiated with scorn the homely scenes and characters in the tragedies of Shakespeare. The experiment nevertheless succeeded, and this thoroughly artificial but artistic representation of the sorrows and joys of illiterate peasants, in lovely metre and with carefully chosen liberties of diction, fascinated the Greek, then the Roman world, and incited the Renaissance to similar, but unsuccessful attempts. It has produced its effects upon English poetry down to the work of Tennyson, who shows more traces of the influence of Theocritus than of the influence of any other Greek poet. The secret of it was that, when other schools became exhausted, Theocritus went back to the people, found among them rude and simple songs which had never yet been adopted by any school or put into artistic form, and raised these from the coarseness of nature into the refinement of a subtle and learned art.

Was not the same process the origin of Greek dramatic poetry, though in an earlier and far less conscious age? Are we not told that tragedy, and comedy too, arose from the rude songs of the people and the rude attempts at acting among simple country folk? The tragedy of Æschylus,

nay, even the perfect diction and metre of Aristophanes, are as far removed from popular song as it is possible to conceive, yet these too arose and matured with marvellous quickness from the rude essays of untutored peasants, whose efforts were wholly beneath the attention of civilised society.

We know nothing, alas! of the cradles of the lyric poetry of Archilochus, of Alcæus, of Sappho; we can tell you nothing of the *incunabula* of that great and varied development which comprised several schools. Over the whole surface of those primeval waters, which cover the world of Greek literature down to the 7th century B.C., we have but the one great solitary beacon, the poetry of Homer, which tells us, like the Nantucket lightship, that we are far, and yet not far, from the utterances of a literary age:

> As the tall ship, that many a dreary year,
> Knit to some dismal sandbank far at sea,
> All thro' the livelong hours of utter dark
> Showers slanting light upon the dolorous wave!

But so much the scanty lyric fragments do tell us with a clear voice: these poets were thoroughly and even elaborately artistic, and their very careful workmanship, if it did arise from an appeal to the songs of the people, shows the very same fas-

tidious care which we find in Theocritus, to purify their art from the clay or the dross of everyday language. Hence follows as a natural consequence, among a people of genius like the Greeks, a perfection both in form and in spirit, which we justly call classical and which forms the model for almost all subsequent poetry. There are no vagaries of metre or diction; there are no exaggerations of sentiment. Every civilised man of any epoch, every critic of judgment, who masters the poetry in the original, finds in it models of taste which have not since been excelled and only seldom equalled.

I need not delay long over a few apparent or real exceptions, so few that they are only enough for cavil, not for serious criticism. We have recovered recently the *Persians* of Timotheus, whose musical performances were very popular in his day. The poem is the worst that we know coming from its age and country. But we also know that we should merely regard it as the libretto of a musical performance, such as the libretti of the Italian operas we used to frequent in our youth, in which the text was not of the slightest importance and was generally very bad. The music was the only part of the performance we criticised. So the *Persians* of Timotheus is

ridiculous as a poem on the great battle of Salamis, but even so is pronounced by the authorities on metre, such as Wilamowitz, to be very careful and polished in that respect. The *Mimes* of Herondas, another recent discovery, are also bad poetry, but then they are mere versifications of prose pieces, such as those of Sophron were, and meant, I believe, for acting on a cheap stage or for dramatic recitation. They can hardly be called poetry. In much earlier days, there was a good deal of tame moral teaching and proverbial philosophy expressed in verse. But that also was so, because as yet prose had not become an ordinary vehicle of writing, and any man who desired to teach, such as Solon, or Theognis, or Empedocles, must express himself in verse.

I will mention but one more feature in which Greek poetry had obviously an advantage over modern art of the same kind. Being almost altogether composed, not for a reading, but a listening public, it was closely associated with other arts, especially those of music and dancing, so as to form an essential part of many great public festivals. It was the soul which animated the frame of every national pageant. If a poet laureate nowadays is asked to celebrate a great public occasion by a poem, he writes an ode or an

elegy, such as Tennyson's "Bury the Great Duke, with a nation's lamentation," and sends it out to countless readers. The Greek poet, on similar occasions, would have a solemn procession, or a dance, or a scenic display, with appropriate music, to assist him. These environments secured two great qualities, or rather tended to secure them, for we must not assume perfection as a general result in any human product. It secured that the poet would aim at *dignity*, avoiding all mean and trivial topics. It also secured *brevity*, avoiding discursiveness, which is a fault of much modern poetry. Thus Wordsworth's *Excursion* would have been intolerable to the poet himself, had he been a Greek, and to come to a more appropriate illustration, the exuberant and unlimited choruses in Mr. Swinburne's *Atalanta*—otherwise a splendid reflection of Greek tragedy—would not have been tolerated on account of their redundancy, but the poet would have compressed them within such limits as would not put his chorus out of breath, or produce dizziness in his hearers.

The production of poetry for local and special public occasions was also a main cause of the use of distinct dialects, which did not become national property till some great work had sanctioned their literary use. Thus the artificial Homeric dialect

became the *lingua franca* of all epic poets, whatever their country or their date, down to the end of old Greek history. Doric choral hymns were adopted by the Attic tragedies and put into the interludes of Attic dialogue. Luckily for us the Greeks wrote phonetically and did not conceal their local speech under the cloak of an artificial and false orthography. Thus the poetry of the nation has come to us in various dialects, but never, except with deliberate dramatic aim at vulgarity,[1] in the mere language of the common people.

But I must now abandon these general considerations and turn to the task of showing you, in some famous examples, how Greek poetry, possessing the excellence requisite for a high model, acted upon the greatest and best of our own poets, as well as on others in modern Europe.

Every one knows that the Greeks have left us three long epic poems—one the epic of war, the second the epic of voyage, the third, that of Apollonius Rhodius, the epic of adventure combined with a great love story. There were many other early epic poems composed in imitation of the *Iliad* and *Odyssey*, but they have been laid aside and forgotten, most probably because their

[1] This is probably the case with Hipponax,

material has been worked up by the Greeks into the nobler form of tragedy. For, as you know, the Greeks, who confined themselves to mythical subjects for these tragedies, avoided the *Iliad* and *Odyssey*, and utilised what were called the Cyclic poets. It is mere commonplace to tell you that the *Iliad* and *Odyssey* have been the unapproachable ideals for all subsequent time. The first and greatest foreign imitator was Virgil, and through his immortal epic, indirectly more even than directly, the world of poets has been swayed. It is nevertheless very remarkable that these two masterpieces, coming complete from the early genius of Greece, as Athena leaped full-armed from the brain of Zeus, appearing, like Melchisedec, without father, mother, or descent, to bless the father of the faithful, should never again have been equalled among men.

The best epic of modern Europe since the classical Renaissance is the *Paradise Lost* of Milton. He has given us ample evidence that he was a great poet, and yet how far below the *Iliad* and *Odyssey* does he fall! I need hardly tell you that the controversies which agitated his mind, and the mind of his age, disturbed the serenity of his poetic vision and dictated to him many digressions which are blots on the purity of his golden pages.

But that is not to my mind his greatest defect. The action of the gods which in the *Iliad* is a mere preamble to the general action of the poem, or an irrelevant episode, and hardly interferes with its thoroughly human character, is in the theological poet far too prominent. It occupies in Milton's poem the forefront, compared to which the episodes in Eden are but a small matter. The tremendous part of the poem is not Paradise lost by man, but heaven lost by the angels that fell. It is the conflict between gods and Titans, as the Greeks would have put it, and not the conflicts or mortal heroes that fascinate us. Another remark obtrudes itself as we pass on. The weakest book in all the *Iliad* is the Battle of the Gods. It might readily be expunged from the poem without loss. In Milton the Divine wholly outweighs the human in grandeur and is the essence of the poem.

There is another feature in this epic which disturbs our admiration—the great richnèss and even redundancy of the learned similes. In this Milton seems to have taken as his model the third Greek epic, which is now forgotten, but which had a great vogue in the Renaissance, I mean the *Argonautics* of Apollonius. His direct obligations to this poet have been noticed in many places by

the commentators. I have no doubt that a careful study would show many more, and it is all the more interesting to reflect how a now forgotten Greek source has had so lasting an influence. The greatest contribution I know from Apollonius to modern poetry is the famous scene at the opening of Goethe's *Faust*, where the world-weary philosopher determines to take a cup of poison, but is suddenly recalled to life by the Easter dawn with its Resurrection hymn. You have but to read the scene where Medea, wracked by what she believes a hopeless passion, turns at the end of a night of wakeful agony to the same escape, a cup of poison. But with the dawn and the awakening of human life, the sounds of men react upon her troubled spirit and cause her to put aside her dread resolve. With her also, and with the Greek poet, the conception is fresher and better. It is the youth and health of Medea, the wine of life glowing in her veins which calls her back from suicidal gloom when cheerful sounds of human life illumine the dawn. The effect of the Easter hymn on Faust, beautiful as it is with our Christian associations, does not seem so natural and is therefore on a lesser scale as poetry.

But when I have started upon the effects of the Greek epic in moulding the great English epic,

which strives so hard to assume a different tone, with a different subject, I am understating the general influence of Greek poetry on Milton. In the days before him we may assume that most of the English poets knew their Greek at second hand, through Latin copies, or through French translations. Ben Jonson indeed, we are assured, knew Greek, and Chapman had in his excellent translation made the English world acquainted with Homer's *Iliad*. It is easy to underrate this second-hand influence and to say that after all it was Latin and not Greek. Nothing would be more misleading. A poet may feel the greatness of another even though he does not comprehend his tongue. Thus Shakespeare, whose drama as a whole was clearly outside of all Hellenic influences of style, as soon as he read in North's translation Plutarch's *Lives*, saw in them subjects fit for his immortal plays. And not only as to subject, but as to treatment, he adheres so closely to the Greek master of biography that you can feel the profound respect and admiration the playwright had for his work. Thus the *Antony and Cleopatra*, to cite but one example, adheres point for point to the famous narrative of Plutarch, and adds nothing to his picture. The influence of Plutarch on the ruf-

fians of the French Revolution is not less remarkable, and will, I think, occupy us in another connection. But then these men had for a century previously been taught by their classical drama to look to the Greeks for lofty principles and ideal characters. Yet for my purpose it is more relevant to cite a modern instance. No one would say for a moment that the Greek tone in Keats was got through Latin or French versions. Yet he seems never to have known Greek enough to read the originals, whose spirit he caught from the echoes of classical dictionaries.

But the indirect knowledge of earlier poets, such for example as the stray citation by Shakespeare of the words of Eteocles from Gascoigne's play, are as nothing when we come to Milton, who shows himself transfused not only with Greek epic, but with the Greek drama. And from Milton, as the great master, comes that perfection of poetic style and of metre which has moulded all English poetry from his time onward. Matthew Arnold even speaks of him as standing above all his successors in this unique distinction. But when Arnold compares this excellence with that of Virgil, he should have added that Virgil also owed it to the Greeks. Nor do I find in Virgil's *Æneid* anything like the familiarity with Greek

tragedy which I find in Milton. Thus the whole situation at the opening of *Paradise Lost* is not due to Homer, but rather to the *Prometheus Vinctus* of Æschylus, where the Titan, overcome and chained to Mt. Caucasus by the superior might of Zeus, nevertheless proclaims his undaunted spirit; and of course this struggle between gods and Titans, which appears so frequently in Greek mythology, and hence in Greek poetry, is constantly present to Milton, and suggests to him simile and metaphor all through his poem.

But why delay over these desultory allusions mixed with those of other legendary cycles, all grasped by his vast erudition? Consider the *Samson Agonistes*. Here we have the poet deliberately going back to strictly Greek form and even, in his notable preface to the play, defending dramatic poetry against Puritan objections by appealing to Æschylus, Sophocles, and Euripides, "the three tragic poets," he says, "unequalled yet by any, and the best rule to all who endeavour to write tragedy." You wonder when you consider that he had Shakespeare before him, whom he mentions elsewhere with admiration. But the same preface tells us clearly why he would not concede to Shakespeare's tragedy the rank he gives to the Greek masters.

He says tragedy had fallen into "low esteem or rather infamy, happening through the poet's error of intermixing comic stuff with tragic sadness and gravity, or introducing trivial and vulgar characters, which by all judicious persons has been counted absurd." He took therefore exactly the view of Voltaire, who is shocked at the gravedigger in *Hamlet*, and the drunken porter in *Macbeth*. Such was also the view of Milton's great French contemporary Racine, who believed that he had composed his plays in the strictest accordance with the principles of the ancients. And yet the school of Shakespeare might easily have defended themselves by citing the practice of those very masters, whose example they were recommended to follow. In the first place every Greek tragic poet composed a merry afterlude, called from its official chorus of Satyrs, a Satyric drama, and this followed immediately upon their tragedy. Secondly, even in this, the greatest master, Æschylus, does not disdain to bring "vulgar and trivial persons" upon his stage, such as the watchman at the opening of the *Agamemnon*, and the nurse Kilissa, who intermix comic stuff with the tragic sadness of the play, and even enhance the gloom by the contrast. Of course the tragedy of Euripides, who deliberately sought to

bring his stage nearer to our ordinary life, could not but exhibit such passages, as any student of him knows perfectly well.

Taking however Milton's own view of the nature of Greek tragedy, we have his *Samson Agonistes* not only constructed on the frame of an Attic play, but in every scene full of reminiscences and allusions showing a minute familiarity with the tragic Three. The opening, with its blind and world-worn hero, seeking for repose, is taken from the opening of the second Œdipus of Sophocles. So is the entry of the chorus, with their surprise at the doleful sight, but presently they assume much the same part as the ocean nymphs in the *Prometheus* of Æschylus, and it is from these two plays that he has borrowed most freely. In the development there is no doubt that Euripides was his real master. The litigious element, if I may so call it, which was dear to the Athenians; the introduction of an insolent giant; of the treacherous Dalila, who put forth arguments to be refuted by Samson, and so to fill up long scenes in the play—all this is in Euripides' best manner. So is the irruption of the distracted messenger near the close, who narrates the catastrophe.

But nowhere is the thorough appreciation of

the spirit of Greek tragedy, as well as its form, more manifest than in the choruses, and in the lyrical monodies which are the finest features of the play. He tells us in the preface, already quoted, that he did not observe the form of strophe and antistrophe, strictly corresponding, because this implies a musical accompaniment and performance in singing which was foreign to his purpose. Still less would he bind himself to rhyme, a shackle unknown or rather very rare in the poetry of the Greeks. He writes both lyrical complaints of Samson, and the choral odes which are interludes to the action, in irregular rythm, which we can hardly call metre, and which are yet in the strictest sense lofty poetry. These things are not to the taste of the ordinary commentator. Thus Sir Egerton Brydges, in a handsome and indeed learned edition adorned by Turner's drawings, says at the end of the first chorus: "Though there are magnificent passages in this chorus, I cannot quite reconcile my ear to the rythm, nor to some of the expressions, which are, I confess, too like prose." It is interesting for you to know that Cicero said nearly the same thing about Pindar. His elaborate metres sounded to the Roman like prose. But to any one who is intimate with Greek choruses, nothing

has ever been composed in English which reproduces their effect so perfectly. I need not add that in substance these odes, partly poetic reflections of a general sort, partly in direct sympathy with the action of the play, are exactly the rôle of the chorus in Greek tragedy. In one point only we may say that here Milton is deficient—in that lyrical sweetness which marks many of the choruses of Sophocles and Euripides, so that we can recite them as independent poems. Probably Milton felt his subject too great and gloomy for such poetical digressions. For when he chose to give us lyrical sweetness, what can exceed his *Comus?* Nor do I know anything more Greek than the lovely though learned lyrical poetry toward the close of that immortal masque.

I now pass from the father of English classical poetry to later but not more varied manifestations of Greek influence. The most remarkable work in the early eighteenth century, which took all England by storm, was Pope's translation of the *Iliad*. Chapman's was already there, a very meritorious work, and now rated more highly than its successor. But in Pope's day style was paramount. The *Iliad* must read as a great English poem, and we have Homer dressed in eighteenth-century costume, just as the boys

that played Terence at Westminster played him in wigs, powder, and patches. It is very easy to criticise Pope's translation. His whole attitude was like that of Watteau in landscape; his epithets were generally wrong, and wrong in principle. "And the conscious swain blesses the useful light" is the conclusion of a simile. Now Homer's swain was not conscious, nor did he bless the light as useful.[1]

Thus we see in Jacques Carrey's now invaluable drawings of the Parthenon—for they were done a few years before its disaster—that he could not even copy Phidias's work before him, without importing the style of the seventeenth-century Frenchman. All these things are true and obvious, and yet the poet, who in translating another, recasts him into his own mould, though he be faithless as a translator, may be far greater as a poet. Ever since I was introduced to Homer by Pope, more than fifty years ago, I have felt that, with all its anachronisms, Pope's poem is the greatest and best version of the Greek master, and a proper one for those to read who cannot approach the original. No prose translation, however scholarly and accurate, can give the

[1] This remark is from Hare's almost forgotten *Guesses at Truth*, an excellent book.

least idea of the swing of the great epic, and so I feel that the influence of Homer through Pope has been wide and lasting and that the very defects of so great a performance have stimulated oft-renewed attempts at reproducing the great masterpiece. Dryden's Virgil of course led public taste in the same direction, so that we have an age very diverse from Greek in taste, and very incongruous to it, nevertheless dominated, perhaps even more than people then imagined, by Greek classical models.

The case of lyrical poetry is not dissimilar. The poets of the eighteenth century had before them Horace's versions of Alcæus and Sappho, and the text of Pindar, who was, as Horace had told them, the greatest master of all. But as he was difficult even for Horace to understand, so he was to the eighteenth-century poets but vaguely intelligible. Above all, the very essence of his studied, careful, and learned genius was wholly misunderstood. He was conceived to be a poet beyond the bounds of strict art, drunk with the muse and pouring forth a torrent of splendid thoughts in disregard of all the shackles of metre, which was so obvious in the Æolic school. Thus they strove to imitate his apparent impetuosity, and the supposed irregularities of

his metre, and produced many good poems, inspired indeed by the Greek, but wholly foreign to their model. The greatest of them was he who knew the originals far better than the rest, and took the pains to master them with scholarly care. We have in Gray a poet of really Greek temper and spirit, very learned, very fastidious, very strict in form, though that form be rich and various, and to my thinking well worthy of comparison with Simonides or Bacchylides, both in purity of style and splendour of diction.

An excellent American critic (W. L. Phelps) has shown very clearly how Gray, beginning with classical training and making the pseudo-classical Dryden his model, was nevertheless in middle life swept away by the Romantic wave which flooded England and which made him prefer Keltic and national subjects to those derived from Greek and Latin traditions. All this is perfectly true, yet equally true is it, that no change of subject could change or mar the splendid form, the pure diction, the delicate taste which Gray derived from his careful study of the Greek poets, and which is as clear in his "Welsh bard," as in his "progress of classical poesy." No English poet had hitherto grasped the real splendour of Pindar, not even Milton, and so the Pindaric odes of

lesser men, such as Cowley and Shenstone, have not survived as popular poems, whereas Dryden's *Ode to St. Cecilia*, and a whole series of Gray's poems, show clearly the matchless training which Greek poetry affords the modern poet, whatever be his subject or his school.

It is in fact much more important and interesting to point out these indirect influences, than to lay stress on the direct borrowing from the Greek in form and diction. This very conflict or contrast may be exemplified in Byron's poetry. He was a leading member of the Romantic school or fashion, and yet all his life he loved and honoured the classical perfection of the Greeks, and not infrequently by a stray passage proves how minute his knowledge even of fragments of Greek poetry.[1] The political circumstances of modern Greece in the early nineteenth century, the great struggle of the population against Turkish tyranny—all this gave a romantic foreground to the classical taste fostered by the higher schools and colleges throughout Europe; and so the admiration of the old Greeks in art, politics, and literature was a sort of classical justification

[1] "Keen were his pangs but keener far to feel
He nursed the pinion which impelled the steel"
is straight from Æschylus.

for the Romanticists who had sprung from the reaction against the false French classicism of an earlier generation. Byron was first in adding the realities of actual Greece to its interest as a mere frame or imaginary locus for classical poetry. None of the eighteenth-century poets, or even the earlier historians of Greece, showed the smallest curiosity about the actual home of Greek literature, the actual cradle that nursed all this unequalled genius.

Even Grote and Thirlwall, long after the poets had discovered what inspiration was to be derived from the mountains and fiords of Hellas, wrote their immortal histories, without any feeling that they would have gained, by a knowledge of the ground, a new and living flavour. For they had both means and leisure to travel and yet they sought no help outside the books of their libraries. But Byron brought into poetry at least that realism about Greece which made a study of Greek and of Greece at first-hand the desire of poets and of artists. Of Keats, who had not the opportunities, I have spoken. In Shelley, we have that perfect combination of romantic imagination with profound Greek culture that makes him the greatest and probably the most lasting of that galaxy that illumined the early nineteenth

century. The least Greek of them all was Wordsworth, and I venture to say that had he studied Greek poetry, it would have taught him the essential differences which separate it from prose—lofty style, select diction, above all, compression within strict bounds and moderate limits—and thus have saved both us and him from the dreariness of his prosaic *Excursion*. Let none of you think that I underrate his poetic work. But in his highest moments it is the glow of Greek splendour, the spiritual lessons of the august Plato that illumine his sober genius, and translate him for the hour into the company of the immortals.

In the latter half of the nineteenth century, we see the strong desire to reproduce the Greek masterpieces not only by people who were poets for the occasion, like Lord Derby or Miss Swanwick, but also by the masters who had already proved their greatness to the English world. Robert Browning has given us versions of several plays, the *Agamemnon*, the *Mad Herakles*, the *Alkestis*. In the last, he lays stress rather on the psychological attitude of Euripides, on his character-drawing, than on the lyrical portions, which are not reproduced in lyrical metre. But how easily he could do this he proved to me when I asked him to render a famous ode of the

poet in a form approaching the original. Writing to London from Dublin on a Monday, I had his version on Wednesday evening. The original manuscript I have given to an American friend who treasures it; the words appear in my little monograph on Euripides published years ago.

Swinburne and Matthew Arnold have not translated old Greek dramas, but have composed plays after that model. To an intelligent reader who has no knowledge of Greek, I know no better approach than to read the *Atalanta* or the *Erechtheus* of Swinburne, or, if he prefer it, the *Merope* of Arnold, which is not so great a poem as either of the others, but just as faithful a mirror of Greek mind; for the exuberance of Swinburne's choruses, the unrestrained riot of his ebullitions against the providence of the Gods, may be splendid poetry —they are foreign to the chaste and moderate diction which characterises almost all Greek literature. If there be a great exception, it is in the gloomy grandeur of Æschylus, and accordingly no play has been so often attempted in English as the *Agamemnon*.[1]

[1] I know no translation of the whole seven plays of Æschylus that I can recommend, though there be many admirable versions of the *Agamemnon*, but among the English

When we pass from this large influence of Greek drama to that of the lyric fragments or the idylls and love stories of our modern poets, I am met by an old assertion of the pedants, that the Greeks were wanting in that love and feeling for nature which is the prerogative of the Romantic school. I see no such contrast between Classical and Romantic. Gray, the most classical of our lyric poets, was the first to insist upon the necessity of a poet refreshing his soul with the wild beauties of mountain scenery. If we had more of Sappho, we should find that she too was romantic in that as in every other reasonable sense. The last fragment recovered, which prophesies that her girl friend will shine at Sardis like the moon among the stars in a summer night, paints the splendours of such a night in the glowing colours of a true poet of nature. There is in Theocritus, there is in Apollonius, ample evidence of a delight in the sights, and still more the sounds, of nature, and so the most classical of our modern lyric poets, Tennyson, shows great intimacy with Theocritus, and takes not only his images but still more his

reproductions of Sophocles let me call your attention to that of Mr. Whitelaw, of most of Euripides to that of Mr. Way. Both of these are eminently the work of scholars who are also poets.

tone from that delightful original. Such images as

> Sleep that gentlier on the spirit lies
> Than tired eyelids upon tired eyes,

and again,

> The moan of doves in immemorial elms,
> And murmurings of innumerable bees,

are, if not translated from Theocritus, certainly suggested by him. A more explicit borrowing from the Greek will be found in the comparison of a strong man's biceps to the passing of running water over a stone that does not break it:

> And bared the knotted column of his throat,
> The massive square of his heroic breast,
> And arms on which the standing muscle sloped
> As slopes a wild brook o'er a little stone,
> Running too vehemently to break upon it.

But in every page of that poet which is not mere familiar home life, I feel in the splendour of his style the very echo of Greek work, and I can well imagine how Euripides would have revelled in the lines,

> His honour rooted in dishonour stood,
> And faith unfaithful kept him falsely true.

The influence of Greek comedy is too com-

plicated to be discussed at the close of this discourse. For the greatest of the Greek masters, Aristophanes, has so intensely Attic a quality that we might as well try to imitate the work of Phidias. But his genteel successor Menander has become, through the versions of Plautus and Terence, the father of genteel comedy in Europe. He was extravagantly praised and popular in decadent Greece. I for one cannot hold that his legacy stands high among the priceless treasures bequeathed to us by his nation. But of his influence there can be no question.[1]

It remains for me to say a word to those who ask how far this great poetry of the Greeks was reduced to theory, among a nation who loved to reduce everything to theory. The climax of this tendency is shown in the work of Aristotle, as we shall see in another connection, and Aristotle has either written, or caused to be written, among his multifarious tracts, an essay called the *Poetic*, which is mainly, so far as we have it, an analysis of the meaning of Tragic poetry. There are, no doubt, some very important utterances in this tract, notably the famous definition of tragedy,

[1] I need hardly add that the brilliant comedies of Aristophanes are to be found in the well known books of J. Hookham Frere and of Mr. Rogers, who has quite recently brought out another play.

upon which so many volumes have been written. But, on the whole, I know no poorer and more jejune exposition of a great subject, so much so that I cannot but suspect that it is one of the many outlying researches that he entrusted to his pupils. Here is the kind of criticism to which I take exception as unworthy of Aristotle: In the *Iphigenia in Aulis* Euripides has given us one distinct type in his wonderful gallery of heroines, all facing death for the real or supposed public good, either freely or under the coercion of cowardly or cruel princes. This Iphigenia is a young fresh creature just blooming into life, and she hears the first news of her fate with an outburst of passionate tears, and of supplication against the cruel sentence. Yet presently, when she finds her doom sealed, she resigns herself with the splendid dignity of an inborn gentlewoman, and so adds greatly to the "pity and the terror" of the tragedy.

The author of the *Poetic* says the character is not consistently drawn, and therefore faulty. What a contemptible judgment! It is only to be matched by the observation of the worthless pedant who tells us in his *scholium* that the Medea of Euripides had no business to shed tears over her children, as she was a hard and cruel character and about to murder them. So again this Aristotle says

that poetry is essentially different from prose, and gives as an example that the work of Herodotus would not cease to be history even were it cast in metrical form. This observation misses the deeper distinction of poetic and prosaic thought, which does not depend on metrical form. There are many passages in Herodotus which despite their prose form are essentially poetry, as we shall see in the next lecture.

These criticisms will, I trust, console you when I add that I have no time left for a full consideration of the *Poetic*. It is not always given to those who do great work to expound how they did it. Even among the Greeks there was a current theory that the poet suffered under that divine madness which we call inspiration, and knew not the full force of what the Muse spoke through his lips. That this inspiration did not dispense with careful preparation, with elaborate metrical perfection, I have already told you. We have but recently learned from the *Persians* of Timotheus that this metrical perfection may also be used to convey the most ludicrously silly conceits.

Let us therefore take what Time has left us with thankfulness, and not disturb ourselves or mar our enjoyment by the application of

barren theories. From Homer to the *Anthology*, you can find great poems and splendid fragments that will exalt you into the higher world reserved for those that can lay aside material cares. There you will enlarge the wealth of your souls; there you will enter upon the heritage left you by those that had attained and taken possession of the ideal to which all our love of beauty tends as its goal. But let me repeat to those who cannot quaff this poetry at the source: take it from the vessels of the English poets that are ready to your hands, not from the laboured prose of the modern scholar. Take Calverley's Theocritus; take Browning's Euripides; take Whitelaw's Sophocles; take Frere's Aristophanes. Thus may you reach not the real shrine, but, like some proselyte of old, the outer court of the matchless Temple.

# III

## GREEK PROSE

I SUPPOSE the ordinary critic, when reviewing the great subject before us, would hardly think to-day's title one of sufficient importance to occupy a Boston audience, and yet it ought to be shown that in prose, fully as much as in poetry, the Greeks have been the teachers of civilised Europe. Probably also the subject will have to you this interest, that it is not at all so obvious as that of the last lecture. Everyone knows about the Greek poets; many of them are the household property of the modern world. But the origin and the development of Greek prose is not so generally studied, and its far-reaching influence not so widely understood. Moreover, we know something more of the early stages of its history, and though it also surprises us with its absolute perfection in our earliest authors, and seems to leap from the brain of the god as fully armed as the poetry of Homer, yet we *have* some traces of earlier efforts; we have some inkling of what went

before Herodotus, more than we have of what went before Homer. That is mostly due to the late origin of prose writing among the Greeks. At first, verse form was uni ersal for recording all topics of interest. Even genealogies were composed in hexameters. All the proverbial wisdom of the Seven Sages was in metrical form. Solon, the greatest of these sages, even preaches his politics, and gives us his autobiography, in elegiac metre. We seem to have travelled a long way from the epoch when such a man as Mr. Gladstone or Mr. Roosevelt would address the Senate or the people in verse; yet for all that Solon was a lawgiver, probably as great as either of them, and a very modern man, too, far more modern in tone and spirit than Mr. Gladstone. Nor am I sure that Mr. Roosevelt would not enjoy composing his messages to his Senate in verse; still less should I affirm that the German Emperor would not revel in heroic verse, as the proper vehicle for his exhortations to his subjects.

I note this in order to bring home to you the fact that late in Greek spiritual history the greatest men and their audiences remained satisfied with the shackles of metre, as conveying serious teaching in a more permanent and more popular form than prose. For of course at the beginning of

society, when there are no written records, men are wont to clothe their legends and tales in that form, as it is a great aid to the memory, and can be easily taught to children, who remember the sound long before they pay attention to the sense. I will not speak of inscriptions in prose, as they are not intended in early days for works of art, any more than the earliest letters, which are mere messages conveyed by writing.

But there *was* an early attempt made, in the rich society of Ionia, to clothe thought in an artistic form without the shackles of metre, and that was the writing of the philosopher Heracleitus. I will speak of his great and pregnant theory hereafter; what concerns us now is that his obscure aphorisms were intended to strike the reader by their form, as well as their matter.

He had apparently a single predecessor in Pherecydes of Syros. The subjugation of Ionia by the Persians, and especially the fall of Miletus, seem to have put an end to this early picturesque writing and thinking until it woke up as the scientific vehicle of the Greek school of Hippocrates, the Father of Medicine.

It was in the opposite extreme of the Greek world, the far west, peopled mainly not by Ionians but by Dorians, that literary prose made a new

beginning, which no political changes were able to crush, till all Greece fell under foreign domination. The first of these attempts was the composition, at Syracuse, of a treatise teaching citizens how to plead their cases in court. It was a time when revolutions in the state and consequent changes of property, arising from confiscations and exiles, often reversed by a turn of the wheel of fortune, made it vital for every plaintiff or defendant to be able to prove his case to a jury by persuasion. This school, though Doric in origin, passed to Attica, bred there a school of famous pleaders, from Antiphon to Demosthenes, who paid the closest attention to the form of their speeches, and so perfected the eloquence of the bar for all time.

In strong contrast to this school was the eloquence of display, referred to Gorgias as its earliest master, which made elegant composition and splendid delivery an end in itself, and, in the hands of the educators called Sophists, often chose a contemptible or repulsive subject in order to show how even the most trivial cause was capable of glorification by art, just as Teniers makes the pothouse and its drunken boors fit to take their place among the treasures that decorate a great mansion.

In these widely contrasted pursuits of careful speaking, there were several points in common. In both, the subject was either ephemeral or might be trivial; it was the *treatment* which was the great point of interest and which gave rise to theories and systems. In neither was it the intention to instruct or improve the hearer. In the one, to effect persuasion for the moment, in the other to gain admiration for the moment, was the object of the speaker. In both also, though most carefully composed, was the written word wholly subordinate to the spoken sound. When these studies first arose, there was as yet no reading public, no gathering of books, and studying them at home; but a public vastly fond of talking, and of hearing brilliant talk.

There were other occasions and interests in Greek life, where the *subject* was of such paramount importance, that for a long time style was regarded with suspicion, as giving a flavour of unreality to the statements of the speaker or writer. One was the narrative of those events that had taken place in past time; the other was the grave deliberation of public men regarding the future of the state, questions of justice and of policy in the treatment of citizens, or in the dealing with neighbouring powers. The earlier leaders of

Greece, such as Aristides, Themistocles, Pericles, and the ambitious men who made themselves tyrants, all must have studied the art of persuasion with due care, but it was not for some generations that a professional orator like Demosthenes was intrusted with the charge of public affairs, and that the words orator and politician came to mean the same thing. Yet even here, the tendency in the Greek mind to submit everything to law and training, to turn every kind of human work into an art, was so strong, that no form of prose writing escaped this schooling, and all of it shows a strictness of rhetorical form which seems, at first study of it, artificial, until we come to learn that the highest products of human art are not spontaneous, but the result of careful reflection.

While these various efforts towards spoken eloquence were occupying men, we find that early annalists set down either in rude metrical form, or even in prose, past events, thus laying the foundation for the greatest development of prose. I mean history, not merely as a record of past events, but as an artistic product, on the same level as dramatic poetry or as fresco painting.[1] The earlier attempts are known to us only

[1] I say *fresco* because this is usually occupied with historical scenes.

through names and scraps of writing; we cannot now tell how far Hecatæus and Xanthus the Lydian were historians in the artistic sense; but there is no doubt whatever that in Herodotus the Greeks have given not only to the ancient, but to the modern world, a model of the *art* of history which has never been excelled. And as if that were not enough, we have in Thucydides another model (one which professes not the charm of artistic narrative, but the strict analysis of positive facts) and in this model, which has imposed itself, or has imposed, on generations of historians, we have another specimen of the use of prose, which is likewise the highest model of the so-called *science* of history. This latter instance is all the more remarkable because the writer did not, like Herodotus, chose a great world-subject, but a long and dull civil war, in which no gigantic interests were at stake, and yet by his consummate art, by his intense seriousness, little skirmishes in which a few hundreds of men were engaged have become household words in modern life, while elsewhere many a shock of myriads has past into oblivion. Thus the little actions of the Athenian Phormio with his well trained boats against a superior force have given rise to a far larger literature than the great world-battles of Actium or

Lepanto in the same seas. There was no Thucydides to write about these latter.

As I think it easier to impress a modern audience with the importance of Greek prose style in this particular branch of its excellence, I shall put it in the foremost place. Nothing strikes a reader of the *Poetic* of Aristotle (or of the treatise so called) as more incompetent than the illustration the writer uses to show that dramatic poetry is more philosophical than history. He says that the former portrays the general features of human character, as they must naturally develop, whereas history has no object but to narrate the details of what has happened, *e. g.* what Alcibiades did or suffered. I have already pointed out to you the astounding stupidity with which he has criticised the development of a noble tragic character by a great dramatist—the *Iphigenia in Aulis* of Euripides. His notion of the portraiture of human nature as it ought to develop is one of commonplace consistency, excluding all those storms and passions which suddenly supervene and which give to human character all its interest and its variety.

I have spoken to you of Aristotle's judgments on tragic characters; but I am now concerned with his view of history, as a mere narrative of particulars, and I come to consider again his statement that

Herodotus if put into metre would nevertheless be only history, and not dramatic poetry. It is a curious thing that we can here refute the critic from historical facts which he should have, nay must have, known. One episode in the history of Herodotus had already become a famous tragedy in the hands of Æschylus, whom we may fairly assert to be a very excellent judge of what was proper for a tragic subject. Another historic episode, the *Fall of Miletus*, was made the subject of a tragedy by Phrynichus, and if it displeased the Attic audience, who fined the poet, it was not because the subject was failing in tragic interest, but because it possessed too much, for it melted the whole audience into tears, and brought home to them their present misfortunes, as well as their recent blunders in policy, and their craven desertion of their kindred in Ionia.

The whole essence of prose history, as an art, first comprehended by Herodotus, is to regard the course of human affairs not as a mere catalogue of events but as a great human drama depending on large and eternal principles, wherein the rise and fall of great nations, still more the rise and fall of the great men who sway great nations, afford us the contemplation of "deeds, or series of events of importance and completeness, produc-

ing through the excitement of the feelings of pity and terror in the reader the purification of these emotions." Aristotle adds to this his definition of tragedy that the subject must be sweetened by graces of diction in every part, and this is exactly what the first great historian did, and what every one of his successors is bound to do, if his work is to live as a work of art, and not to be laid by as a mere repertory for learned reference. History as a matter of style is therefore one of the great legacies of the Greeks to mankind.

But not only in the style does Herodotus agree with the definition of tragedy in Aristotle. He does so also in his subject. This must be great or dignified, it must have completeness in itself, and it must contain those changes of fortune which are so peculiarly affecting to every reader. The struggle between Persia and Greece, its inception, its varying fortunes, the subjugation of Ionia, the anguish of Greece—all leading to the climax at Salamis and Platea, and the craven flight of Xerxes to his home—what greater or more complete subject could a historian choose? And in order to sweeten it with words, there are many pauses in the action, filled with delightful digressions, far more various and more restful than the choruses in a Greek tragedy. These, and all the

main narrative, and the dramatic dialogues which he composes for his actors, are presented to us in that easy and flowing style which seems natural and obvious, because it is the most perfect art.

I do not know whether this admirable simplicity is ever the spontaneous product of human genius. Whenever I have been able to reach the evidence, I have found it the result of great labour and fastidious care. I will give you an instance. There was no one more remarkable in Europe in his generation for pellucid simplicity of style than Ernest Renan. I once saw in a friend's room a proof which Renan had sent him for revision. I was not allowed to study it, but a glance showed me that a thin strip of printed matter, the first draft, had been laid down on a large blue sheet of paper, all the wide margins of which were covered with corrections, alterations, and rehandlings of the printed sentences. There was much erased, much added, much changed more than once. There was perhaps three times as much in the corrections as in the original draft. The result, as we know, was something so easy and natural that it seemed to have flowed without the smallest effort from his pen.

But Herodotus is not the only model by whom the Greeks have established a standard for modern writers. He has about him the air of a story-teller,

and he repeats many legends and wonders, so that graver and more sceptical generations set him down as a credulous traveller easily deceived by lying reports, if not as a deliberate writer of fiction. So many of these so-called lies or inventions have turned out after all to be true or probable (*e. g.*, the tradition that the Etruscans came to Italy from the coast of Asia Minor by sea) that even from this point of view Herodotus has been vindicated by modern research.

If you want a model of the other kind of history —that which professes to be a sober record of carefully sifted facts, which professes to discard all that is miraculous or legendary, and insist upon testimony, then in the opinion of all the ages you find its perfection in Thucydides. There used to be a general agreement that in contrast to the obviously artistic turn of Herodotus, his successor had exalted history, as far as was possible, to the rank of an exact science. We now know that this view is very far from the truth. Thucydides, as his speeches should always have clearly demonstrated, was an artist just as consciously as Herodotus, nay rather a more subtle artist, in that he concealed his art and deluded mankind under the guise of a solemn and dignified person, telling nothing but the unvarnished

truth.[1] For he too felt that the tragedies of human affairs were a fit and noble subject for the contemplation of men; he too felt that the lessons conveyed by the catastrophes in the affairs of brilliant polities and brilliant men are as valuable as those borrowed from legendary story for the tragic stage. The speeches he puts into the mouths of his characters are not those actually delivered, either in language, or probably even in substance. They are rather rhetorical expositions of the political situations, as the historian conceived them, and reflections which he thinks the reader ought to make. He also knows the more modern way of dealing with this side of history. His reflections on the Corcyrean massacre[2] are a famous specimen of this artistic or subjective writing. I have taken pains elsewhere to show that his picture of the degradation of politics in Greece so far as he represents it to be new and sudden, is false. All the vices which make up his brilliant but lurid sketch were old, well known, and ingrained in the Greek character.[3]

[1] The reader can now consult the brilliant and suggestive *Thucydides Mythistoricus* of Mr. Cornford on this aspect of the historian and his work.

[2] Book iii., 82–4

[3] *Cf.* for example what Herodotus tells us in his fourth book of the affairs of Cyrene.

But it was part of his artistic scheme to represent the vices of that age, and especially at Athens, culminating in a brutal and wholly unhistorical dialogue with the Melians, as the proper prelude to the great disaster in Sicily and the consequent fall of Athens. Thus choosing a far smaller and poorer subject than Herodotus, treating it also in a far poorer and narrower way, he has by those very restrictions intensified his book, and infused into it such dignity and pathos as to make it artistically worthy of the age of Phidias, of Aristophanes, of Socrates.

When we ask whether the diction of this great work is adequate to its artistic conception, the answer is not, I think, far to seek. There are two kinds of diction in Thucydides, a clear, chaste attractive narrative of facts, without ornament, but rising with its subject to a pathetic earnestness, which has seldom been surpassed. This narrative, like the dialogue of tragedy, is interrupted at suitable moments by the pretended speeches of the actors, which by a curious inversion are like the chorus in the play, giving the motives of the action and often the disguised opinions of the writer. These are expressed in obscure and contorted language, which ancient critics did not hesitate to stigmatise as thoroughly bad style.

With models of clearness before him, such as Herodotus, Euripides, Antiphon, this fault is an idiosyncrasy of Thucydides, and yet a defect which has not failed to bring to him certain advantages. For obscurity always produces the impression of profundity, especially when it occurs in a solid and weighty author. Thus the many platitudes in Thucydides' speeches, and the recurrence of obvious ideas, are disguised by contortions of expression, so that the discovery of the meaning is a mental exercise which flatters and thus pleases the reader, if he be curious in such things, still more the commentator, who finds wonderful scope for his often mediocre talent in such labour. This is the quality in Mr. George Meredith who makes his admirers think highly of themselves, while they despise others.[1]

Time fails me to illustrate further, in Xenophon and in Polybius, this artistic conception of a period of human history as a great drama, in which the rise, the splendour, and the fall of great men, great cities, great nations are told us with artistic selection of the details and artistic perfection of style. This was the conception which moved Gibbon to write the *Decline and Fall of the Roman*

[1] I must refer the audience for details to the chapter on Thucydides in my *History of Greek Literature*.

*Empire.* He saw around him, at Rome, the gigantic relics of a bygone civilisation. He felt within him the power of style to present the facts in adequate form; and so we obtained another work of art, in which the presentation of the facts is not less important than the facts themselves. As the Greeks put it over and over again, and as Cicero repeats it, history is a form of eloquence, and *that* history only will last which possesses the *sine qua non* of a great or an attractive style. This is what the Greeks have taught us, and what many of us have ignored to our own ruin as permanent teachers.

I will conclude this part of my subject by reminding you that in biography, which as the idyll gives a single scene, or as a cameo gives the portrait of an individual—Plutarch has been the model to all modern biographers. How truly dramatic was his conception and his treatment of individual great lives will come home to you at once when I remind you that Shakespeare found in his *Lives* subjects for a series of tragedies, and in his diction language which required very little paraphrase.

Let us now turn back to the sister developments of eloquence, wherein the writing of history had accomplished such triumphs. These are in

brief the eloquence of debate, and the eloquence of display. And the eloquence of debate may either be that of the courts, wherein private individuals, the plaintiff and defendant, are pitted one against the other, or that of the public assembly, where political deliberations are held and in which the orator seeks to persuade the majority to adopt his policy or to reject the policy of a political opponent. Remember that in all these cases the Greeks were equally adverse to extemporaneous effusions. They believed in the artistic arrangement and polished expression of every argument. In the law courts, where litigants had to appear in person, and not by counsel, it was the advocate's duty to compose the client's speech for him beforehand, and probably to instruct him in its proper delivery. As we never hear of any breaking down in court, of any client unable to remember or speak out what the advocate had prepared for him, I think it possible that the litigants were allowed to read their speeches. In any case, the composition of these speeches became a well-known and lucrative profession, and was accordingly adopted by the ablest men. The practice had long suggested the theory, and so from early times there were treatises composed, known as τέχναι, wherein the subtleties of the

art of persuasion were carefully analysed and reduced to rule. The early treatises of this kind are lost, but we feel their results in the remains of Antiphon and Isæus, and can affirm that they were eminently practical, and thoroughly opposed to the froth and fury of what we call popular eloquence. The use of figures of speech is reduced to a minimum, the so-called flowers of rhetoric are wholly absent. All is tame, severe, temperate, not pretending to influence the passions but to convince the reason. And yet this latter is to be done not by speaking the language of the heart, but by the careful training of the intellect, and the perfection of the delivery.[1] To us moderns these things appear at first hearing to flavour of artificiality; the great bugbear of the modern mind, which contrasts it with the purity and sincerity of nature. The Greeks knew this contrast perfectly, and they met it, not by the folly of leaving nature to follow its own devices, but by making nature the highest artistic product. Thus the court advocates, composing for various clients, studied not only the proper arguments

[1] The minutiæ of rythm and harmony to which they condescended are such that I could not possibly make them clear to you in a short passage of a lecture, but must refer you to the chapters on Isocrates and Demosthenes in my *History of Greek Literature*.

to be urged, but that these arguments must be presented "in character" and so they carefully kept before them the personality of the speaker. In Lysias especially, this expression of character in the speaker is part of his art, which so perfectly apes simplicity that it requires a careful analysis to detect behind the simple utterance of the homely citizen the subtle rhetorician.

This refinement of legal rhetoric seems to me to have been disregarded or abandoned when the pleaders became so celebrated that the fiction of a client speaking for himself was no longer plausible, and when the public that thronged the courts went to hear an oration of Demosthenes or Hypereides delivered by his client. Hence the speeches of Demosthenes are not so various in ethos, and many of them being delivered about his own private affairs, had already taught the public to recognise his great style. In particular, so many of his orations were not court speeches but political harangues that this latter branch of eloquence may be regarded as that in which he best showed his pre-eminence. And there are not a few instances where the ostensible case was only an excuse for promoting or vindicating a great policy. The acme of all this branch of Greek literature is the famous *de Corona* of

Demosthenes, which great lawyers and political orators like Lord Brougham have declared to be the very *ne plus ultra* of eloquence intended not only to persuade, but also to persuade by all the arts of subtle logic, of brilliant sophistry, of red hot argument. And remember men like Lord Brougham, though infinitely better practical judges of the effect of such a speech than are mere scholars, did not know one tithe of the subtleties of style, which have only been detected by the minute studies, not only of the old Greek critics, but of modern German scholars.

Even in such a mighty speech as this you will notice the very scanty use of ornament. There are none of what we moderns call the flowers of rhetoric; there is no sounding peroration. It is the picture of a grave patriot vindicating his life's work against the carping of his enemies and the criticism of his opponents. There are indeed passages of gross vituperation, wherein by scathing reflections on his opponent's previous life, he replies to Æschines' insinuations about his private character. Nor has the character of Æschines ever recovered from this "raking of his record," which was probably not at all kept within the limits of the truth. But the restraints which have been usual among modern gentlemen in

debate, especially the modern English gentlemen of the last century, were not regarded as essential to the dignity of the highest Greek court oration, and that was probably because the jury was composed of the middle and lower classes who were not shocked by any want of refinement.

Notwithstanding this limitation, there can be no question that in the oratory of debate the Greeks taught the Romans, then through them Mediæval Europe, then after the Renaissance, modern Europe directly, so that even now they are the acknowledged masters in this splendid art. It is all the more astonishing, as we might naturally think that a society without printing and consequently without a great reading public would not have aimed at producing an eloquence which was not only splendid to read when the heat of controversy was allayed, but worthy of study and of analysis by the critics of succeeding generations. Nevertheless, with no better means of publication for readers than manuscript copies, and without any hope of great celebrity, or of great profit as the authors of written speeches, these Greeks produced work which has perfectly stood the test even of new and exacting conditions. In spite of their limited public, the orators had attained to as clear a notion as we have of

the importance of appealing to a reading and thinking public which could study their arguments and their style at full leisure, and so, not content with the orations primarily intended for delivery, they also perfected the prose essay, and even the prose dialogue, a very peculiar form of literature, inasmuch as it is the literary stereotyping of an apparently spontaneous conversation.

But when I speak of a reading public, perhaps I should limit it somewhat, and say a public accustomed to hear reading aloud. That is the intermediate stage between a mere audience and the mere readers of books. I am quite accustomed to that intermediate stage in Ireland. You may see there any day groups of people hearing a newspaper or book read out, and if the great body of the public is of this class, then the writer must think not only of what he has to say but how it will sound when read aloud. I take the same principle to have animated the composers of the splendid English Book of Common Prayer. They desired to affect the hearer not only by the sentiment, but by the sound of their Liturgy. Now this is the very step in prose writing which was taken by the Greek students of eloquence, and most notably by Isocrates, the father of the political prose essay in Europe.

There were no doubt accidental or personal causes which conspired to this result at this moment. Isocrates, with great natural gifts for style and for composition, was wholly deficient in voice and in physique for the profession of public speaking, nor had he the extraordinary energy and perseverance shown by Demosthenes in overcoming these defects. So it occurred to him that he might exercise his influence by prose writing in the form of open letters or political pamphlets, where he puts his thoughts into the most polished periods and the most refined language.

I cannot but quote to you a curious parallel of a man of genius turning a natural defect into a splendid success. When Richard Wagner began to compose operas of the received form, he failed because of his want of facility to produce a sustained melody. He then bethought himself of the use of short phrases instead of sustained songs, and in spite of his original defect he has obtained a very great and deserved popularity. There are, of course, other great qualities in Wagner, especially his novel and splendid use of the orchestra. But the question of melody is always the vital one in music, and no man ever attained the first rank that has left us so few sustained melodies. His *Rienzi*

shows what he could do when he attempted them.

The laws of prose composition, as devised and perfected by Isocrates, are the most subtle and complete ever put into practice by any living man, and though of course some of them are only applicable to the Greek language, and indeed to Attic Greek, the general principles he expounded have been applied by many writers and in many languages.[1] It is well known that Cicero modelled himself on this style and through him it became dominant in Europe. The greatest English example in older days is the *Areopagitica* of Milton, who though manifestly inspired by Isocrates, is far from possessing his perfect control of language, perfect smoothness of period, perfect clearness of thinking, all of which make up the charm of the great master. Isocrates was the teacher of this great style, not only to pleaders and pamphleteers, but to historians, and he was blamed for making men like Ephorus and Theopompus, his favourite pupils, in writing their once famous works, think more of their diction than of their impartiality or their research. But surely the duty of making history eloquent, such as we have it in Gibbon, is of paramount value. To this I shall not now

[1] *Cf.* § 457 of my *Greek Literature*.

return. I rather desire to call your attention to the supremacy of a great periodic style even in English, and in these latter days, when brevity, epigram, impatience of style and an affected neglect of form are in high fashion. Among the writers of the 19th century, I take by far the greatest stylist to be John Ruskin, and I consider that far the largest part of his influence arose not from his ideas, which were often fantastic, but from the admirable way in which they were set forth. But he was essentially the master of the long period, for with him you may find a whole page consisting of one grand sentence, in which many clauses are co-ordinated, many lesser ideas balanced, many strands woven into the one great tissue which comes from the writer's pen as from a loom. And that is the reason why he was a greater stylist than all the Froudes and Newmans and Paters, who either use short sentences, or if they attempt the period, are neither melodious nor clear.

The same law holds good in eloquence, when we can find a master to illustrate it. The two greatest English orators I have heard during the last generation were Mr. Gladstone and Archbishop Magee. Both dealt in the long period —the former from constant habit, which was even notable in his ordinary life, and which spoilt his

conversation; the other, who was brief and pungent enough in ordinary talk, trained himself upon the model of Chalmers, a great Scotch orator before my day. I have seen Magee's copy of Chalmers, and have noted how minutely he had dissected and analysed it. But both produced the same wonderful effect by (if I may say so) embarking the audience with them on the billows of great periods, which excited wonder how they would ever come safely to land. The rounding off and concluding of such a period not only with safety but with splendour produced an effect upon their audience unlike anything else that I have experienced. The style of neither, though both knew Greek well, was based directly on Isocrates; but most certainly their speech was based upon the principles he had taught and impressed so well upon Cicero and his like, upon Milton, upon Jeremy Taylor, upon Edmund Burke, all of whom appreciated and practised this supreme prose style.

But if the Greeks here showed the modern world the model of the highest perfection in the prose essay, they would not have been Greeks if they had not also shown us the perfection of easy conversation, of everyday talk, of the play of various styles, and the expression of various

characters in the cultivated language of the day. And so Plato in his *Dialogues* has shown the world an unapproachable example of conversation raised to a high art, which again created a distinct literary form that has never died out.[1]

All these developments are (with the exception of biography) those of the Golden Age of Greek Literature, and are the discovery of great masters who were the glory of that age. But as we shall see frequently in the course of these lectures, the silver age of Greece was almost as fruitful in the creation of models for the imitation of modern Europe. It was only after a great body of splendid authors had lived, that we could expect to find literary criticism assuming an important place. For the literary critic is after all a sort of parasite, who lives on the bodies of greater and more dignified animals. We know that when the library of Alexandria came to be collected, and the sifting of authors and of the texts of authors became necessary, there arose a great school of critical scholars, who purified the received copies, who apportioned the respective value of the texts, and who developed that censorious attitude toward the classical masterpieces which is the bane of the modern world. We still have in the critical essays

[1] On this *Cf* §§ 416, 437 of my *Greek Literature*.

of Dionysius of Halicarnassus and still more in the Tract on the Sublime, belonging to the 1st century A.D., excellent models of what is good and useful in this reflexive attitude of a later age, and of second rate ability. The great age of production had been very simple and naïve in criticism; the attitude of Aristophanes, and even of Plato, in judging poets is merely a moral judgment and seems never to take into consideration æsthetic questions. In the Tract on the Sublime we find quite a modern standpoint, and the judgments of this author have had no small effect on the literature of the last century. No less a person than Edmund Burke thought it worth while to translate this tract, and how wide was the author's sympathy will appear at once from this fact, that he quotes as a signal instance of the sublime the opening of a work far removed in spirit from classical Greek literature—the book of *Genesis*, in the Greek version.

I need not delay over the many and various Epistles left us by the Greeks, and which you may see collected in one of Didot's big volumes of *Epistolographi Graeci*. But I do not think that we can call letter writing a distinct form of literature, and it is very certain that every nation that could use writing materials could hardly fail to adopt

it in some form. Nor do I think the letters extant are in any way remarkable, perhaps because most of them are the compilations of men attributing these documents falsely to the great ancients. The letters ascribed to Plato, Isocrates, and others give us nothing additional of literary importance.[1] I will therefore pass from these, as well as from the moral harangues of the later rhetors and sophists of whom Dion Chrysostom is far the most interesting. I wish modern sermons would borrow more from this admirable and little used source, for Dion was a man of the world, a traveller, a sound moral teacher, and gifted with a great taste for the picturesque.

But I cannot conclude without a word about the prose novel of the Greeks, who here also founded a form of literature that has assumed gigantic importance in the modern world. The novel may be regarded as the last legitimate offering, a child born out of due time, as Saint Paul calls himself, but like Saint Paul a greater influence in our modern life than any of his

[1] An exception may be made for the genuine letters of which we have found the actual originals among the papyri of Egypt. Here we find, among Greeks scattered abroad, the offspring of adventurous and mercenary soldiers, all the urbanities of modern letter writing. All the Roman formulæ of politeness we find in Cicero's letters, were derived from this source—the long current Greek forms of correspondence.

older brethren. It might have been thought that from the modern Comedy of Menander and his rivals to a prose novel in the modern sense was but a small and inevitable step, and yet no branch of Greek literature had less influence upon the rise and development of so kindred a subject. The very frame on which all Menander's plays were stretched with wearisome iteration, I mean the rehabilitation of a respectable girl, who solely through the neglect or the violence of others, has become a mother without being a wife—such a topic would be wholly repugnant to any Greek novelist we know. For in all the stories we possess the main interest turns upon the preservation of the heroine's purity through every sort of temptation, and every sort of attempted violence. This was a topic quite strange to Greek sentiment and foreign to Greek literature till it was imported from the East by those who had there learned that sort of love-story. There are indications of it in the romantic episodes of Xenophon's *Cyrus*, but the adoption of it as a striking topic is later, and due to Callimachus, whose poem called *Acontius and Cydippe* was perhaps the first love-story of our modern type offered to the Greek world. A youth and a maiden, whose beauties were described in great detail, meet at

a religious ceremony, and fall deeply in love at first sight. The various and commonplace obstacles to their union which are familiar in every modern society—worldly parents, a richer suitor for the maiden, threats of broken hearts and of suicide—these occupy the story, which through many untoward delays ends in a happy marriage.[1] It may cause amazement in this audience that such a plot should ever have been new in literature, especially in that of the Greeks, who had every sort of human experience before them. Yet it was new in the Alexandria of the Ptolemies, and made its fortune in that world-weary and artificial society. In all the Greek novels we possess, some such love-story is the necessary thread which glitters through the tissue, so much so that the German pedants edit them under the title *Scriptores Erotici Graeci*. Yet the relation between the lovers being absolutely pure, any temptations which occur arise from the passions of violent people who create no interest in the reader. By far the best specimen we have, owing to its simplicity and

[1] If Shakspeare's *Romeo and Juliet* ends not in happiness, but in disaster, the devices of the play—the sleeping drug, the hiding in the tomb where the lovers again unite, these are the stock devices of our Greek novels, so clearly, that the story must have been derived through Italian versions from a Greek novel of this kind. Boccaccio was clearly influenced by this literature.

its natural scenery, is the famous *Daphnis and Chloe*, which has found so many imitators ever since the French of Amyot has made it accessible to modern Europe. We feel indeed that the unknown author was far from possessing the innocence of his characters, or the spontaneous appreciation of the nature he describes. The work is from the time of Decadence in Greek literature, and has the faults of its generation. But for all that it is a beautiful work of art, just as the *Idylls* of Theocritus are beautiful, just as the *Hero and Leander* of Musæus is beautiful, just as the Martinmas summer of your woods is beautiful, and all the more beloved because we feel it is but "the gilded halo hovering round decay!"

I said it was our best specimen because of its simplicity, and yet it is not wanting in violent and improbable adventures toward its close. But these are as nothing compared to the adventures of lovers in the other stories of this kind, because there then was a wholly different vein of prose story, which came into fashion with the love-story, and became amalgamated with it, to the great detriment of both—I mean the stories of wild adventures in strange and fabulous lands.

With the wonderful invasion of the East, there were opened to the astonished Greeks new regions

of fabulous splendour, of astounding treasure, of amazing nature. So violently was their imagination stimulated by what they saw that they set themselves to construct books of travels beyond the rising sun and beneath the ocean wave, into the homes of monstrous beasts, and still more monstrous men. The schemes of Alexander himself were baulked by his soldiers, who positively refused to embark in his wild dreams of universal conquest, but there was nothing to impede the imagination of the writers of his deeds, who combined the real narrative of his conquests with his quest after the hidden wonders of the East. Hence we have the so-called *Life of Alexander*, which I consider to have originated shortly after his death, but to have been amplified and glorified by succeeding generations of those that told their stories to delighted audiences. In this *Life and Acts* we have the starting point of a whole literature of Fabulous Travels, mixed with descriptions not only of odious savages, but of ideal societies that lived hidden away from the vices and troubles of old and decrepit civilisation. But this literature, so popular in the Middle Ages, is outside the pale of Hellenism. It is not only the last child, but the illegitimate child of their once pure and lofty imagination.

## IV

### GREEK ART—I: ARCHITECTURE AND SCULPTURE

IT is of course an illogical division to separate art from literature. Among the Greeks, at all events, literature in all its forms, was not only an art but the most perfect art. No statue of Lysippus is more perfect than a drama of Sophocles. But for convenience' sake, and in this age where literature is seldom an art, we may speak of Greek art as that division of their work where they dealt not with words, but with other materials, and where they combined the uses of life with the love of the beautiful, as no other nation ever did. We may add that in regard to Greek influence on modern life (which is our proper subject), none has been greater and more permanent than that of art in this sense. Thousands of men have copied, or imagined they copied, Greek art, who were never able to read one word of Greek and who never cared one jot about Greek literature. I take to-day its more solid and larger expressions—architecture and sculp-

ture, reserving for my next lecture the more subjective arts and those of mere ornament.

It is not true, as you might suppose, that these latter were later in development than the art of architecture. Far from it. In rude pre-historic ages, when the knowledge of building had not advanced beyond the question of mere safety, we find delicate and beautiful ornaments put upon arms and on personal decorations. The most elaborate tattooing of the savage is consistent with extreme rudeness in his dwelling.[1]

The earliest form of house we know, which was designed not only for shelter and durability, but also for safety, is the *underground* beehive house. Beehive huts of stone are common in many nations, and may perhaps best be seen now in the huts of the monks on the wild rock of Skellig Michael, which is the nearest land in the British Islands to the traveller coming from America. But such huts are not easily defended against an enemy. This latter advantage is obtained by making the hut a chamber underground,[2] and only to be entered by a passage long, narrow, and

[1] The first beginnings of music, in the form of whistles or pipes, are found among prehistoric remains of people who had never learned to write, but only to draw pictures.

[2] In the rudest cases the house was not excavated but was built on the surface, and then covered with a mound of earth.

low, in fact a sort of horizontal shaft into which the enemy can only creep on hands and feet, and so can have his head chopped off as soon as it appears within the chamber, without possibility of using his weapons. I have seen this form of house in the most primitive village of the stone and bone age, which is known as the Weem of Scale, on a very wild bay of the main island of the Orkneys, looking northwest into the Atlantic. There, under the sands accumulated by the gales of thousands of years, we find small subterranean huts, with nooks in the stone work to hold rude vessels and implements, and with a low covered way for the owner to creep in and find himself at home. The weapons found in such houses, many of which are yet unexplored, are either of stone or bone or shell. These dwellings, once a very general type—for remember, similar wants in mankind produce similar satisfactions of that want in the most widely severed parts of the world—usually come to us in the stage of survival, when men had already learned other kinds of architecture. Hence they often preserved for the dwellings of the dead this type of underground beehive house with a long and narrow approach, though as time went on the house was made higher, and the avenue of approach better (as we have it in the famous New

Grange in Ireland), and they even ornamented the inner surface of the slabs that formed the walls. As usual, the prehistoric Greeks did it all more perfectly than the rest of the world. The beehive house known in former days as the Treasury of Athens, but now recognized as a tomb of some prehistoric king, is a splendid building fifty feet high, and made of thirty-three horizontal courses of stone overlapping as they rise, with the inner surfaces cut to form a conical chamber. Not only are large lintel stones used, but there were rosettes of bronze ornamenting the inner surface of the walls, and the stately avenue (*dromos*) lined with stone work of great finish and open to the sky, led to an ornamented gate or entrance. A restoration of this entrance, made by the aid of the actual pillars carried home long ago by the Marquis of Sligo, now astonishes the student of prehistoric art in the British Museum.[1] Why do I, however, delay over this very perfect and beautiful kind of building of which another noted specimen is the Tomb of the Minyæ at Orchomenos in Bœotia?[2] In the first

[1] The inner lintel stone 30 feet long, 16 deep, and over 3 thick, weighs about 112 tons. The *dromos* is 115 long and 19 wide. The doorway is 17½ feet high and 8 feet wide at the top swelling to 8½ at the ground. The whole chamber about 50 feet high and 50 across the floor. Read description in Baedeker, p. 324.

[2] The beehive chamber I take to be an importation from

place, to show you how the highly developed and finished forms were the gradual perfection of the oldest and rudest protected house, to which they merely added height, careful finish, and ornament, which ornament we know from Egyptian parallels to date some fifteen centuries before Christ; secondly, to bring home to you the important fact that the beehive or round house was at an early date abandoned to the use of the dead, and not employed for the use of the living till quite late in Greek history, when a few round public buildings show that the idea had not been lost. The men that built the great and elaborate tomb of Atreus probably never themselves lived in a round or beehive, but in a square house. They only maintained the round form out of respect for the dead, and indeed for the sake of the safety of the treasures buried with the dead.

To the square house (of course I include under this short word all rectangular buildings) we now turn. It seems to me that the earliest model which suggested this form was the hut of logs, laid one over the other alternately at right angles so as to enclose a square space. Two upright posts with a horizontal beam over them would supply the

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northern and central Europe and therefore probably due to that strain in early Greek civilisation.

first rude doorway in an opening left by using shorter logs on each side of it, and then it was very obvious that a gable roof to cover the house would be made by laying logs from the top of the wall to rest one against the other at their upper ends, or of course a flat roof in a similar way.

We can derive from this simple form the whole classical architecture of Europe. In the first place, the gaps between the logs were filled with clay, and so even the great stones at Tiryns are treated. Thus the wall was made staunch against rain and wind. But then someone discovered that by making clay into bricks and drying them slowly in the sun, they would have a building material much more serviceable than wooden logs or stones. And so the filling up stuff became the main stuff of the wall; yet how persistent the idea of using wood can be inferred from the fact that early brick walls have wooden beams built into them longitudinally by way of giving firmness, but also affording a danger of complete ruin, if the building was attacked by fire. The door posts and the lintels were of wood; for the mud brick wall ending beside the door would rapidly suffer if not protected by a facing of wood, and later on, terra cotta casing was used to replace the wood. Ultimately, stone door frames and pillars replaced the older wooden

work. But everywhere the traces of the primitive wood work survives. The oldest pillars were tree stems set on a stone base. At the top where the weight laid on them tended to flatten them out, they were probably bound with a metal band. This you see perpetuated by the Doric pillar, standing on its base without plinth, and at the top we have a band running round, and over it a splaying capital with a slab or abacus over it, to protect the inwards of the wood from being soaked with rain.

There is no more persistent ornament in a Doric Temple than that course over the actual wall which consists of what are called metopes and triglyphs. The metopes are not foreheads (μέτωπα) as even some persons who know Greek might imagine, but interstices (μετόπαι), in fact open spaces or holes between the triglyphs. Originally, when the roofs were of opaque tiles, these openings were necessary to let in light. But the triglyphs, what were they? Vitruvius notes them as beam ends, for he calls the metopes *intertignia;* and why were they always marked with three grooves, as their name implies? Apparently because two horizontal beams, intended to make a ceiling, had a third pinned between them which rose to the gable, where it met another, and so formed the skeleton

of the sloping roof. When marble tiles, which were semi-transparent, or when a higher false roof was set on, the metopes were no longer necessary to let in light, and the Greeks made the now closed intercstice an ornamented surface, showing groups, either painted, or carved in relief, to vary the severe lines of the building.

We have drifted into some of the leading features of temples, and they are indeed the buildings which have most influenced subsequent centuries, but the features of the temple were originally those of the stately house, as we can see clearly in the remains discovered at Tiryns. The roofs and upper stories are all gone, but the arrangements of the doorways are quite the same in principle as those of the historic temples, except that in the Tirynthian doorways, there are many evidences remaining of the actual use of wooden pilasters and pillars. Pausanias in the second century still found one or two wooden pillars surviving in the ancient temple of Hera at Olympia. As they got worn out, they were replaced by stone, and Dr. Dörpfeld found that these substitutions were not all uniform, but in accord with the altering taste of the day. The capitals in particular varied from pillar to pillar, to judge from those found among the débris of the temple, which,

by the way, contained the famous Hermes of Praxiteles.

The ultimate separation between the dwelling house and the temple was that the house included a central court with rooms around it, which was too large to roof over, and so the model was handed on to all southern Europe. The Italian palaces, for example, are all dark and fortified toward the street, and contain an inner court and a gallery running round it on the building within, on which the rooms open. So permanent are the right principles of architecture when once discovered by a race of genius.

The temple or house of the gods was, of course, a single chamber of moderate size with a treasure house behind it, and the gradual development of it from a simple square chamber with one end opened for a door, and adorned with two pillars between the pilasters which formed the ends of the house wall—the doorway *in antis*, to the elaborate peripteral temple with double rows of pillars running round it—all this is to be found in any handbook of ancient art. From the very use of the temple as compared with the private house, it followed that while the temple looked outward, and was meant to show its beauty to those that approached it, the private house looked

inward—all its beauties were reserved for the occupants, and care was even taken to prevent any curious observation on the part of the public. But it is only of recent years that the extant ruins have been minutely measured and studied, and now we know that, in addition to building this rectangular house for the god, there were the most elaborate and minute laws observed in the proportions of the various parts, and in the optical corrections of straight lines, which were found to appear curved. This perfection, therefore, of Greek religious architecture was not merely the adoption of a good practical form, and the carrying out of it in precious materials and with clear and competent workmanship. The most delicate adaptation of curves, the most curious and subtle applications of harmonies in lengths and heights, were utilised to produce an effect which all observers have long felt to be the most marvellous in the world.

But before I go further I will dispose of an interesting point which many have thought a defect in the architectural genius of the Greeks. You will see in every book that the use of the arch was unknown to them, and that for this capital feature in our buildings we are wholly indebted to the Romans. That the arch was not in use among

the Greeks, I attribute to the fact that the round house and conical roof were deliberately rejected by them in favour of the square house and wooden structure of doorways and roofs. As already observed, this form was long since devoted to funeral purposes and to the burying (not burning) of the dead, and so its associations were gloomy. But it seems to me absurd to say that people who could frame a conical stone roof, by horizontal layers of stones gradually closing inwards, should not have advanced to the principle of the arch with its keystone. This in fact Pausanias assumed them to have done in the Tomb of the Minyæ at Orchomenos. He says the top stone of the vault is the *ἁρμονία* of the whole vault. If this was not accurate in the case of Orchomenos, it at least shows that Pausanias, a very experienced observer of old Greek building, did not hold that this generic distinction existed between Greek and Roman building. But, as I said, the Greeks rejected round or conical forms for rectangular, and the Roman combination of the two, which passed on to the Renaissance, is distinctly a modification of form to which the Greeks would not have agreed. Still less would they have approved of the use of arches and of architraves as the mere ornament of a building, and supporting nothing. To the Greeks every

member of their building was there for use. A pillar was set to support an architrave, this latter to support the beams of a roof. Flat surfaces were decorated with painting, or with reliefs, but these flat surfaces were necessary to close in the building from the weather. Thus, to illustrate bad building by an example, when you look at the portal of St. Mark's at Venice, you will see groups of marble pillars with a highly decorated arch over them, making a rich doorway. But there are more pillars than are wanted to support the arch, so that some of them stand idle, as a mere added ornament. That is only one instance of the tawdriness which infects the decadence of a great style—in this case of the Romanesque architecture of eastern Italy and Sicily.

There is a very widespread belief that the arch was invented and first used in Italy, and high authorities, like Viollet-le-Duc in his famous *Entretiens sur l'architecture*, put forth the theory that the Romans learned its use from the Etruscans, from whom they borrowed so much of their early civilisation. But if they did, is it certain that the real origin was not Greek? Is it likely that this enigmatical nation found out a great principle of construction unknown to the Greeks? I think not; and all the more so, as I hold all the early Etruscan

culture to have been stimulated by the Greeks, with whom Etruria had an older and deeper connection than was suspected a generation ago. For now we come back to the statement of Herodotus, that this nation came from Asia Minor, and by sea, to Italy. The settlers of the earliest Greek colony in Italy—Cumæ—followed in their track, and their immigration seems not to have been very early. Hence they may very well have borrowed their use of the arch from early Greek teachers, and thus imposed it upon the Romans and upon the world. But does it really matter to my argument? Even the Romans, who perfected the use of the arch, were not satisfied with it unless they had put it inside a Greek face of pillars and architraves. The Greek temple has afforded a model which has been copied in every capital of Europe, and in its most perfect form has an artistic splendour which is second to none among the buildings of the world.

I will repeat that, as the Greeks determined at a very early age that domed or circular buildings were the proper receptacle of the dead, so they have transmitted that decision through the Romans to modern Europe. The Pantheon, whatever its original use, has come to be the solemn resting-place of national heroes. The great tomb of Hadrian,

now the Castle of St. Angelo, was built under the same prepossession, and so through all ages down to the *Invalides* in Paris, and the memorial to Shelley at Oxford, all these houses of the dead are the offspring artistically of the Treasure-house of Atreus, of the Tomb of the Minyæ, and of the rest, consecrated by the old Greeks. Quite recently, when our King brought me to see the Mausoleum of Queen Victoria and her Consort at Frogmore, I was able to point out to him that the builders of this circular chamber also, though they probably knew it not themselves, were copying the ancient and almost universal model of a house for the dead. The Greeks very possibly derived this old idea from a northern race. The occurrence of similar forms in the early tombs of Ireland and of other parts of Europe seem to show that there was some prehistoric agreement about this form of tomb—the most distinguished, as well as the safest, residence they could devise, first for living men, then for departed kings or chiefs who demanded cult and sacrifice. That may be all very true, but it does not alter the fact that it was from the Greeks that civilised Europe adopted the idea.

I now pass to another field of art, in which this gifted nation has exercised an undoubted supre-

macy down to the present day. The very idea of exceeding the excellence of a great Greek statue hardly enters the mind of the modern sculptor. If he could but approach the work of Praxiteles, or even of the nameless workers who carved the great tomb of Sidon, he would regard it as an astounding achievement.

We shall find not a few who attribute this perfection of Greek sculpture to the great opportunities they had of observing the play of limb and muscle in their daily exercises in the *palæstra*, where men and boys exercised naked. That I take to be so far true, that I have often suggested to modern sculptors, who complain of the insufficiency of their models, to make a pilgrimage for a couple of years to Samoa, or the Solomon Islands, where they may study very noble forms, exercising in the purest state of nature, so far as they have not been depraved into clothes by well-meaning, but mischievous, missionaries; and I think that the first sculptor who ventures upon this education may do great things in his art. But it only touches a fringe of the question as regards the old Greek triumphs. Naked figures were not the earliest or greatest Greek achievement in sculpture. There are indeed some archaic nude Apollos, but all the early goddesses, so far as I know, were draped, and

it is in drapery also that Greek sculpture is unique for its supreme grace. Need I add that it is not only in single figures, but in composition that the Greeks are still our masters? If any of you will compare the frieze of the Parthenon, even as we have it, with any modern composition of the same sort, it will require no argument to persuade him of the truth of what I say.

There is another somewhat more subtle reason given for this strange superiority in art of a people who had not a tithe of our experience or of our mechanical resources: I shall give it to you in the words of a gifted Italian essayist, Professor Pasquale Villari: "The problem," he says, "set before the famous sculptor Donatello, at the dawn of the Renaissance, could not be solved by the mere study of ancient art. The Greeks had no means of expressing Christian spirit or emotion. Their quest was for outward beauty of form, and their nature, being simpler, more spontaneous, and more harmonious than ours, could be adequately expressed in marble. They had no experience of the mental maladies, the tortures of remorse, or the whole inner life created by Christianity. In their times, no ascetics, no hermits, no anchorites, no martyrs, no crusaders, no knight errants had appeared in the world. But in Donatello's day all things were

changed; the faculties of the human mind had been altered and multiplied. Therefore, a new art was needed to represent the new inner life. Assuredly, Christ and the Virgin cannot be chiselled in the same way as a Venus or an Apollo. Outward beauty was no longer the sole aim of art. It was now bound to express character, which is the mind's outward form. Even the very soul of man, with all its load of new struggles, sorrows, and uncertainties, must show through the envelope of marble. Was this possible, and if so, to what extent? That was the question put to Donatello."[1]

To criticise this interesting passage, to show what a partial and imperfect view it expresses of Greek genius, might be a task instructive to my hearers, but too wide and irrelevant to my present discourse. Some points, however, will help us directly to the understanding of Greek sculpture.

It is only too true that the Middle Ages, from which Donatello's generation was emerging, were a period of spiritual gloom and depression. But this was due not to the larger troubles and experiences of men, but to the spiritual tyranny of the Church, which had distorted the sweetness and benevolence of the Gospel of Christ to include a

[1] Villari's *Studies*, p. 258.

hideous engine of torture. The clearest picture of this odious manufacture of artificial horrors may be seen not only in the many grotesque representations of the tortures of hell, which were anything but grotesque to the public of the Middle Ages, but by attending a mediæval play, which has been brought out in Boston, as well as in London—the play called *Everyman*, which magnifies the horrors of death by representing the Deity as a gloomy tyrant, served by a greedy and heartless Church, which exacts half a man's fortune for the boon of saving him from eternal torments. These artificial horrors were not indeed unknown to the Greeks, for we hear that the punishments of the wicked, not to speak of Tantalus, Ixion, and the rest, formed part of the revelations of the Eleusinian Mysteries, but they would on no account have been permitted a place in ordinary life or in art. If the Attic public fined the poet Phrynichus 10,000 drachmas for bringing before them their national sorrows in his *Fall of Miletus*, what would they not have fined the author of *Everyman*, for importing darkness and horror into the day of death and libelling the gods as cruel tyrants with no mercy for the frailties of men?

But, apart from this imported gloom, it is in my opinion false to say that the Greek was not just as

experienced as any modern man in the great problems and the inevitable sorrows of human life. The whole of Greek tragedy consists in the representation of these dolours, and if Professor Villari wants proofs that the terrors of conscience, the agonies of remorse, were perfectly known to the Greeks, I ask him to turn to the picture of the tyrant's soul in the eighth book of Plato's *Republic* or to Xenophon's *Hiero*. The Greeks were not at all that simple, joyous, spontaneous set of grown-up children who appear in many of our books upon the subject. They had a large and varied experience of life.[1] But they had the good sense—or shall I say the genius?—to confine their art to what it ought to convey. They felt that marble and bronze should not be used to represent the violent emotions of tragedy, the violent moments in human life, and when they lost this reserve, their sculpture had begun its decadence. The *Laocoon* with the two little men representing his children is indeed a work of art of which a modern sculptor might well be proud. It would not have been approved by the Greeks of the Golden Age, and Phidias would have looked

[1] God—says Herodotus in the famous dialogue of Xerxes and Artabanus on the fugitive character of human happiness—God, that has given to man a sweet taste of life, is found grudging in his dole.

upon the group with contempt, in spite of its technical excellence.

A brief sketch of the development of sculpture will illustrate this principle. In the first place you must hold fast to the truth, not frequently enough insisted upon, that sculpture among the Greeks developed with extraordinary quickness after a long infancy into its perfect manhood. The work of 550 B.C., in the full brilliancy of the courts of Polycrates and Periander was still rude and helpless, wanting altogether the beauty which we desiderate in that art. As soon as we turn 500 B.C. we have such things as the *Charioteer* of Delphi, figures which are on the very threshold of perfection, and indeed in some respects, such as the modelling and texture of the arms and feet, quite perfect. In another fifty years we have the splendours of Phidias.

Not less remarkable than this rapid growth is the very gradual decay of the art. The age of animals, as is well known, is in proportion to the period of gestation. It was not so with Greek sculpture. Coming to perfection in a couple of generations, it lasted all through the greatness of Greek history into Macedonian times, when it produced such wonders as the *Nike* of Samothrace, down to the Roman conquest, when it gave us the

*Aphrodite* of Melos, and even still later, when empresses borrowed from it those splendid portrait figures which we admire in the Vatican and the Lateran museums at Rome. And it is not only the Golden Age but the Silver Age of this sculpture which is the eternal model for modern artists.

The next feature of great importance which concerns us is that this branch of art began (as did mediæval art) in the service of religion. It was to represent the figure of the god, it was to decorate his temple, that the sculptor made his great efforts. And I hasten to add that the art was never dissociated from its sister art of painting, for the Greeks always called in the help of colour; not only in architecture, but even in representing single human figures. They felt the utter coldness of Parian or Pentelican marble and they were not afraid to use rich colours and even kindred materials to increase the majesty of their representations of the Divine.

It is very remarkable how timid and sporadic, mainly from a misinterpretation of Greek teaching, have hitherto been the attempts to return to this sound principle. In the twelfth century, indeed, admirable work was done by the sculptor in producing coloured statues, generally, I think, of wood. Thus the kings and bishops of that time in the

Cathedral of Henry the Lion at Brunswick are most striking and lifelike specimens of the art, and there are many more in the churches and the museums of Northern Europe.[1] But it seems that the discovery in the Renaissance of Græco-Roman statues from which all the colour had been effaced by the action of time, damp, and the contact with clay, misled the early sculptors of that day into the belief that Greek statues were always in the purest white marble; that form only and not colour was the aim of that art; and so we have had our galleries flooded with cold figures, which are only beginning to give way, as may be seen in the recent exhibitions of the Royal Academy in London, to more or less delicate tinting, or even to relief in high colours, using other materials than marble. Thus the Greeks have been our masters as well in our mistakes as in our successes. But we can now have no doubt as to their principles. Even in their bronze statues, they were so anxious to give

[1] Nothing is more striking in the old churches of such towns as Lüneburg, Wismar, Rostock, than the representation of the Crucifixion on the carved wooden work used as the reredos in various chapels as well as over the high altar. The main figures are in high relief, the crowd standing in front of them in the clear, all coloured richly and in many colours as well as gilding. But for the painful subject, these triumphs of the carver are perhaps the most splendid in mediæval art. The magnificent tombs of the Dukes of Burgundy at Dijon are their worthy rivals in stone.

expression by colour that they commonly made the eyes of their figures in black and white.

I turn now to speak for a moment on the principles of composition in Greek sculpture, for in such a discourse as this it is obviously better to spend time on general considerations than in emphasising details. There were, of course, from archaic times single figures, first of gods, then of men, which ultimately became portrait statuary; but in early days a composition of figures in stone or wood was unknown till they came to decorate architecture with friezes and pediments. Thus the statues which adorned the state entrance to the old temple at Miletus were simply a row of sitting figures like the rows of sphinxes guarding the approach to the Egyptian temple, but there is no composition. It was not till the rise of the fashion of ornamenting buildings with the sculptor's art that, as before said, compositions come into play; and mainly in two forms—triangular pediments which filled the once open end or gable of a roof, and bands of decoration along the walls of the building. The form of the gable—a very flat triangle, with the obtuse angle at the vertex—determined the sculptor, just as the shackles of metre determine the poet. But even as these apparent shackles have produced the most splendid

effects in poetry, so the limitations of space have suggested to the Greek sculptors the most poetical devices. We now know that even the pre-Persian Parthenon had such a composition on its gable, of which great serpentine monsters, carved in local stone, and then coloured, have been recently recovered. But when the art reached its perfection, we have the device of a notable mythical event, or a struggle, with agitated or combating figures, arranged symmetrically on either side of a central god, who is greater, calmer than the rest; while in the acute angles, the aspects of nature—rivers, woods, the rising and setting sun—were suggested by graceful lying figures, which show that air of peaceful and silent indifference that is the usual aspect of nature around a great human tragedy.[1]

These marvellous compositions, full of symmetry and of variety, have been the examples set before scores of European sculptors, in their imitations of classical architecture; but I cannot say that I know a single specimen that I should like to show here to you in direct comparison with the work of the ancients. It is in this, as in so many walks

[1] The foaming heads of the horses of the rising sun at the left corner of the east pediment of the Parthenon are a splendid exception to this calm in the angles of the pediment, and the subdued calmness of the horses of Selene, which represent her setting, accentuates this exception.

of art: all the modern resources of science, all the study of the old masterpieces, have not sufficed to kindle the spark of genius in our inartistic age. We have a thousand resources that the Greeks had not—we have a thousand volumes of exposition, analysis, criticism, telling how these things were done—yet we are like the civilised man trying to elicit flame from the sticks which furnish the primitive man with his fire. All our efforts only succeed in producing smoke; the living spark will not come.[1]

Much the same may be said of the second favourite form of Greek composition in sculpture, the ornamenting of long flat surfaces with rows or successions of figures, of which the frieze of the Parthenon is the most familiar, but not the only example. We now know from the recoveries at Delphi, especially the so-called treasury of Siphnos, that this theme was derived by Phidias from older examples.

What is the strange fascination in this long row of figures? There is that peculiar combination of sameness and of variety which affords us delight in all the occupations of our life. This procession

[1] This I tell you from the first-hand evidence of my son who was for years in the Solomon Islands and saw it done a hundred times by natives, but never even after desperate efforts by any European.

has one general scope. It is bringing offerings to do honour to the gods, and bringing them with pomp and circumstance. But while all these men and maidens are bent on the same pursuit, they are represented with an endless variety in detail. Some are on curvetting horses, some are leading bulls both quiet and uneasy, some are carrying weights upon their shoulders, some have them on the ground—and are lifting them. There is the unity and difference which in music we know as harmony, and each figure is carried out with such simple perfection, with such unassuming grace and beauty, that it is hard indeed to point out any insufficiency or defect. There is even this subtlety in the detail of the work—that, as this band of figures was intended to be seen high above the spectator, care was taken to carve the lower limbs in slightly flatter relief than the upper, and the limbs of the horses were even made a little lighter than in nature, in order to counterbalance the predominance which the part nearer to the spectator's vision might assume.

When such are the shattered fragments of an art which once adorned every city and every public building in Greece, it seems impossible to conjecture what would have been the effect on modern Europe had the great mass of it survived.

Perhaps not so great as we should be disposed to assert at the first blush of the suggestion. For we could hardly avoid calling in the analogy of other arts, and of other times, where the works of genius preserved and known do not inspire modern artists. There is plenty of splendid mediæval architecture existing, and yet our modern architects have not been able to take their place as independent successors. In literature we have had many similar facts discussed during previous lectures. All the models in the world will not suffice without the divine spark in the teacher as well as the pupil, and this gift is rare and sporadic not only in the individual, but among the nations which have hitherto appeared in the course of history. There is, moreover, in using workers of a remote age or country as models, one concomitant circumstance which may make our efforts wholly incommensurate with theirs. It is the atmosphere in which every society lives, by which it has been created or at least fed, and which it creates in its turn. As the modern artist cannot possibly reproduce these surroundings, it is well-nigh impossible that he should reproduce the subtle spirit, once the very breath of Greek art, which has long vanished, and which has never since been recalled by the wit of man.

# V

## GREEK ART—II: PAINTING AND MUSIC

WHEN we pass from the monumental arts of architecture and sculpture to those of a more subjective character, which use more fleeting vehicles for their expression, we have in modern life painting and music, which we may expect to be more independent of Greek models than the rest. For, *ex hypothesi*, pictures so far as they are on panels of wood or canvas can hardly survive the lapse of ages of neglect,[1] and as for music, the notation is so small and poor a clue to its real meaning, that even if we understood it perfectly, we should still be a long way from grasping the full meaning as felt by the Greek public. I will give you an illustration of this from my own experience. There is in our English and Irish cathedrals a tradition of the way in which certain anthems are to be sung—a tradition generally derived from those

[1] A curious exception is now to be made for the panels with portraits of the dead found on mummy cases of the first and second centuries in Roman Egypt.

who sang them in the composer's presence, or under his influence. The older editions of these anthems seldom give any expression marks, the performance being entrusted to the taste of the choir or its knowledge of the composer's intentions. A signal example is the finest of Blow's anthems, "I beheld and lo! a great multitude," composed in the reign of Charles II. (1680), and sung ever since by sundry cathedral choirs, amongst others those of Dublin, where there has from long since been a great school of church music. In Dublin, this is one of the most moving and dramatic anthems, owing to the great liberties taken with the time by the Vicars Choral, who have kept the tradition unbroken. I chanced to hear it sung by the very excellent choir of Magdalen College, Oxford, on their high day—All Saints' Day, when it is annually performed. I was astonished to find that they merely sang it from the text without any of the traditional liberties. The effect was so poor and unmeaning as to be almost ridiculous to one who had been taught to understand the inner sense of the work.

We are not quite so destitute as to Greek painting, for we have at least a good many fresco pictures, by more or less obscure and incompetent

workmen of the Hellenistic age, to show us what the Greeks aimed at; we have on the many beautiful examples of pottery preserved to us the representations of mythical or other scenes which must have had some analogy with the paintings of the same or similar scenes. Lastly, we have many descriptions and epigrams from those who admired the masterpieces of this art, and although these are inadequate, and are often the observations of incompetent rhetorical critics, they still give us far more definite ideas than any description of a musical work could possibly supply. As to the Golden Age of painting, we have nothing but these, for our specimens of frescoes on the walls are all either from pre-historic palaces, or from Græco-Roman houses. If we wish, therefore, to obtain any understanding of this side of Greek art, we must not be content with our poor and sporadic examples, but must enter upon some general considerations which will afford a larger and deeper basis for our judgment. For our inferences from the Pompeiian frescoes to the lost masterpieces are just as hazardous as if we had lost all the masterpieces of sculpture, and endeavoured to judge of their quality by reasoning from the terra cotta figurines of Tanagra and other places, which are often graceful, but almost always

faulty in their modelling. Should we indeed have inferred that the modelling of statues in marble and in bronze was absolutely perfect?

The two æsthetic qualities requisite for success in painting are obviously a sense of form, and a sense of colour; without a natural appreciation of the beauty inhering in each of these, the highest technical skill, however valuable, does not suffice. After what you have heard about Greek architecture and sculpture, I need not say another word to show that in the sense of form the Greeks were supreme and unapproachable. But what about their sense of colour? On this the evidence is not so clear and has given rise to divers interpretations. First of all, the Homeric poets, in their vivid pictures of old Greek life, are singularly vague and confused in their words for colour, so much so that people used to imagine that the poet, because he was blind, or the poets, because they were primitive, had no distinct colour-sense. I remember this latter view being pressed upon me by Mr. Gladstone in conversation, together with the reply he had from Charles Darwin, which he gave me to read, that as even insects are guided by a very clear sense of colour, it was absurd to say that the most primitive men should not possess it. This argument seemed both to him and to me

hardly conclusive, for the faculties which are now human need not have developed at the same rate from lower forms, or kept abreast of one another in acuteness. Thus human development might not require an acute sense of colour, while that of the insect made it essential, and so lower forms of life might be infinitely more developed in some respects than those far higher in the general condition of their senses and their intelligence. I therefore took another line in my objection: that we know the Egyptians, centuries before the oldest date allowed for Homer, had at least ten distinct names for colour. And this was not because they felt the difference more distinctly, but because in their arts and crafts they produced the varied shades, and therefore found names for them. Even nowadays, it is not the poet, or even the artist, that invents names for subtle shades of colours, but the milliner or the modiste. When I was young, there were two shades of grey known in the phraseology of these people—one as *gris de souris*, the other as *gris de souris poursuivie*. This is but a more minute subdivision of our sensations of colour invented by those that produce it for trade purposes. The want of names for colours is therefore not confined to the Greeks. More important is the fact that their early painters are

known to have used but a few and primary colours, and also the further fact that their temples, which they always coloured (and, to my mind, rightly) for effect, were adorned on a simple and primitive plan,—red, blue, white, yellow, being, so far as I know, the colours generally used.

Now these facts seem to me to harmonise with the small development of a sense of the picturesque in landscape, which is characteristic of the Greeks. The principles of reproducing perspective with lines and colours on a flat surface were indeed discovered in the fifth century B.C., by a certain Agatharchus, whose book on shade painting seems, however, to have been a work on scene-painting, as an aid to producing illusions on the stage. Nor does the idea of representing external nature seem to have been a want felt by Greek artists, seeing that they had adopted the very peculiar device of representing mountains and rivers by figures of the gods and nymphs which inhabited them and in which they were personified. The heads of the horses rising from the sea represented on the Parthenon the advent of the day. The graceful figures of nymphs on the pediments of the great temple at Olympia represented the scenery in which the action was laid. Looking down the whole history of Greek painting, from the rude frescoes

at Tiryns to the decorations of houses at Pompeii, I cannot find that landscape as such ever occupied Greek artists, and here therefore we have one of the very few departments in which the modern world may boast itself independent of its almost universal teacher.

It is not so in the case of portrait-painting, and painting of scenes in mythical or in real life, for here even the faint echoes of Greek genius affected powerfully the artists of the Renaissance. In this field, however, the influence of Hellenistic sculpture and of relief work was so combined with that of the few specimens of actual painting from Herculaneum, Pompeii, and other sites, that the separate effect of Greek painting on the modern artists is not so easily appreciated. The mythical subjects at all events were told and glorified in countless epigrams of the Anthology, and as soon as this collection became known and popular, it was sure to dominate the fancy of sentimental artists like Botticelli. But if the direct influence of Greek on modern painting was baulked for want of models, the indirect effect of Greek art on the best of modern painters is very great. Consider for a moment the two most refined of modern English painters, the late Lord Leighton, and the still living and working Sir Edward Alma-Tadema.

The latter generally calls his subjects Roman, but anyone that knows what the elegances of Roman life owe to the Greeks, sees at once that the whole spirit of the artist, and of the subjects he delights in, is Greek. The case is still more undisguised with Leighton. All his most striking pictures are from Greek life or from Greek legend; his whole conception of beauty is derived from the same models, and I well remember, when I used to visit him in his delightful studio in Kensington, seeing it all set round with copies of Greek sculpture, and his fervid utterance that to these unapproachable models he owed all his art.

In the absence of the actual paintings, great use has been made of the scenes painted on Greek vases of the best period, some of which attain to quite a high level, and we cannot but feel with Sir Alma-Tadema that from this source he has drawn not a few of his ideas. Surely the products that inspired Keats with his exquisite Ode make clear to us how the fruitfulness of Greek genius is not dead or even exhausted, but still kindles a pure light in modern minds sensitive enough to catch the flame.

It is to be observed, before we pass on to another subject, that the art of painting among the Greeks began, and long remained, a branch of

decoration, and was therefore subsidiary to architecture, or stately furniture, or fine pottery. The fashion of producing easel pictures painted for their own sake, readily movable and therefore displayed in galleries, as well as upon the walls of palaces, only came in with the decadence or at least the full ripeness of other arts. The products of the painter were akin to those of the epigrammatist, whose elegance may well be called by a poorer word—*finish*—and is to us rather the exhibition of great cleverness than the outcome of genius. It was the day also of social decadence, when the mere artist became the idol of society, and could parade his conceit and his vulgarity without fear of censure from patrons who only valued him as the ephemeral fashion. The gossip we hear about the old painters often exhibits this painfully modern triviality.

I now turn to the topic of music, in interest second to none, but one in which I must endeavour to make my discussion intelligible to those who have only a practical knowledge of this subject. In most histories of Greek art, music is simply omitted; in the special works upon it, there is much that is not only so difficult, but so dry and technical that the average student of Greek life can hardly be expected to approach it.

As regards existing specimens, we are just as miserably provided as we are in the case of painting. We have recovered a few scraps of the musical notation accompanying poetical words; and as we understand this notation, it is an easy task to reproduce the so-called melody. We have also a scrap or two in the notation of instrumental music (apparently an accompaniment), a notation, strange to say, differing from the oral. But here the melody is missing. And let me tell you at once that no living musician could attempt to supply it with the smallest verisimilitude. The same is the case with our texts of melody. There was a much lauded hymn found a few years ago on the wall of one of the houses uncovered at Delphi. In some places the surface of the stone was broken; so that there were gaps here and there of a bar or two in the music. No living musician who knows his business would undertake to supply any one of these gaps.[1] Were it a modern composition, we could with certainty offer two or three alternatives, and we could exclude a vast number of restorations as absolutely impossible. Such is not the case with the Greek specimens we know, neither do they appeal to our modern taste. To

[1] And yet there were several ignorant and random attempts made to reproduce it with modern harmonies.

say that these specimens, when played for us, are hideous, is merely the expression of that violated taste. There are many, perhaps even some in this audience, who would say the same thing of the plain song which the present Pope has ordered to be used in Roman Catholic churches to the exclusion of more modern music.

The real conclusion is that so far Greek music is to us unintelligible; and yet in all the other arts nothing is more intelligible to modern minds than the products of Greek taste which are our best and clearest models. Is it that a highly artistic nation may be wanting in one particular department? We have before us the case of the modern Japanese, whose artistic work in most directions is of great excellence and fully appreciated by the world, but who confess (at least I have heard one most intelligent native confess) that their music is far below the level of European compositions. But here we probably start from a difference of scale, whereas the Greek scales (or at least the diatonic) are the parents of all modern European scales.

And now that you have before you the actual problem raised by the extant remnants of Greek music, let us turn to the Greeks themselves, and see what light their writings throw upon the matter.

In the first place music was not only popular but universal among the Greeks. Those who did not cultivate it were worse than Shakspere's "man that has not music in his soul." All Greek poetry, even the epic of Homer, was recited musically; the lyric poets were as much musicians as poets; great tragedians composed the music for their choral odes, and indeed a Greek tragedy when performed must have far more resembled an Italian opera than a play in our sense. This is the combination which Richard Wagner strove to realise. But to be gifted in two directions of art is indeed very rare. The music of Æschylus and Sophocles was probably as inferior to their text as Wagner's text is inferior to his music. All Greek educators imply that every boy can learn music; we never hear a word about want of ear, a want of musical faculty. This was to me in former years a great puzzle, for, like all of you, I was brought up in a society where a few had gifts for music, and the remainder were incapable of singing in time or in tune, or of learning to play an instrument with intelligence—and so we drifted away from the older fashion of making at least every girl play or sing as an inevitable infliction on society, and now only those who show a keen desire for it spend their time at music. But in the new schools, where

choirs are taught on the tonic *sol-fa* system, I am informed by the most competent teachers that an inability to appreciate music, or to sing in tune, is quite rare, and that the great body of our children can be taught to make and to appreciate good music. If this be so, the Greeks were again right, and we in our older generation less wise than they.

In their opinion, this general possibility of learning music was a necessary condition of another settled conviction among educators, which is foreign to us—I mean the conviction that the practice of music has a direct and powerful effect upon the morals of average men. On this point the Greek educators were very explicit, and it is of great practical importance to us nowadays to consider what they say. It was not at all identical with a very widespread belief among modern parents that the pursuit of music generally is a refined pleasure, and will save the young from some lower or more mischievous recreation. That view was quite familiar to the Greeks. But their distinctive theory was this: that the performing or hearing of certain kinds of music had a direct effect, either moral or immoral, upon the mind, and that therefore wise educators must encourage the right sort of music only, and banish the rest from their pupils. I know very well that there were stray voices,

especially from the Epicurean philosophers, saying that this is all nonsense, that music can have no such effect, and that the only moral or immoral part of the performance lies in the words.[1] But this only shows that the opinion of the vast majority and of the wisest men was not adopted without criticism, and without the other side of the question being clearly before them. The modern world is under mental conditions such as the Epicureans. We have generally assumed that music as such had no influence in moulding morals. We feel that it may be so in the accessories—that the constant singing of love duets and the associating with theatrical company may do harm and the associating with serious musicians may do good —but modern people seem hardly to dream that music such as Wagner's, apart from the words, may have a direct effect upon morals. And yet it is here that we might have incurred a great and honourable debt to the Greeks, and have used their wisdom to save our youth from serious danger. This is a conviction of mine, not of to-day or yesterday, but of forty years' standing, derived

[1] This is the view advocated in the *Tract on Music* by Philodemus, large fragments of which were recovered on a charred papyrus from Herculaneum. There is another fragment of a similar character recently discovered and printed by Messrs. Grenfell and Hunt.

indeed from the suggestions of Plato, but verified by frequent contact with music and musicians. I will here give you one striking illustration. Anyone at first hearing of Wagner's *Tristan und Isolde* would perceive that it was a most immoral subject, expressed in highly emotional music. It is an artistic glorification of adultery, palliated by the old and vulgar excuse of a magical love-potion. All this is so obvious that I wonder sober people would not keep their children from witnessing the work just as they endeavour to keep them from reading immoral novels. To me it seemed even worse, for I could not but perceive, and had often and long since asserted, that the composer himself wrote the music under the influence of some such moral aberration, and that, apart from the words, it was intended to express his criminal longings and disappointments. It is only a year or two since the correspondence of a lady, published after her death, showed that this anticipation was literally true, that these phrases of love-sickness were actually composed and sent to her because she had awakened in him a passion which she was not wicked enough to satisfy.

I know there are people who think transcendent genius such as that of Napoleon, or, in his way, of Wagner, affords a justification, or at least an

excuse, for such lawlessness. And you have heard much talk about the *Superman*, whose main attribute seems to me *infra* human, when the rights of others are concerned. To me the veritable Superman is not the slave of his own passions, who satisfies them at the expense of others, but the master of himself, who, because he is pure, feels and helps the weakness of his neighbours. Not Sir Lancelot but Sir Galahad is the ideal of chivalry. Of the one,

> "His honour rooted in dishonour stood,
> And faith unfaithful kept him falsely true";

but of the other,

> "My strength is as the strength of ten, because my heart is pure!"

Perhaps, during this digression, the objection may have been rising in your minds that if Greek music was so universally believed to have a moral or immoral influence, this was because it differed wholly in quality from that which we pursue, and that therefore an inference from one to the other is very hazardous. This is supported by the fact already adduced, that the actual remains of Greek music, though legible and intelligible in the literal sense, have no power whatever to speak to our musical emotions. We must therefore turn back from practice to theory and prove to you that, in

spite of these difficulties, Greek music was distinctly the source and forerunner of our own. And I may say by way of preface to this part of my discourse that the simplicity of music, far from being a cause of its lesser emotional effect, may be the very reason why the great mass of people feel it more deeply. The intricacy and difficulty of our modern music tend to estrange it from the feelings of the larger public and to confine its influence to the special class of trained musicians. The Greeks left us no practical work on music, no criticism of existing compositions, no comparison of the effects produced on audiences by this or that artist, by this or that kind of instrument. We find only obvious generalities, such as the flute being more exciting than the harp. There is indeed one passage where Plato goes deeper and inveighs against purely instrumental music as more exciting and therefore possibly more mischievous than vocal music with an accompaniment, showing that he did not lay the stress of the emotion upon the words. Those who have gone deeply into modern music will agree with him; they feel that the emotions produced by a symphony of Beethoven are more subtle, and, because more subtle, deeper and more lasting than those produced by any vocal music, unless it be eight-

part music, which approaches the richness of an orchestra.

But this suggestive remark is quite an exception. The extant musical tracts are wholly theoretical, and are concerned with the scientific basis of music, not its application to practice. And the first problem to which they applied themselves, which they solved, and have handed down to us, their heirs in art, is the determination of the proper scale or scales in which music should be composed. This was no easy thing to do, and if you take the trouble to hear the music of any people who have not adopted the Greek solution, or one like it, you will at once perceive the difference. I well remember persuading, with great difficulty, a band of gipsies, in Hungary, to play for me not the music of the Hungarians, for which they are so celebrated, but some of their own Oriental stuff, which they play among themselves in private. I found it wholly unintelligible on account of the scale, which seemed to have thirteen or fourteen notes within the octave. All this the Greeks had contemplated, and in some of their early scales they used quarter-tones and intervals strange and disagreeable to us. But, after much hesitation, they fixed upon the diatonic scale, which became the basis of their music, and in due time of ours.

The varieties of this scale which they used were far greater than ours. We are contented with the variation of major and minor, and repeat the same intervals in the same order with a mere difference of pitch, very slightly modified by the temperament of our tuning. The Greeks thought the position of the two semitones far more important, and considered that the quality of the scale, quite apart from pitch, was produced by the variety in the placing of these intervals. But I must repeat that our extant treatises are so absolutely scientific and not practical that it would be impossible to attempt an analysis of them in a popular lecture. The discovery of the scientific basis of concord or harmony and its difference from discord had been made very early by the Pythagoreans, and I have often thought that their famous theory that numerical relations were the key of the universe was much stimulated and fortified by finding that octaves, fifths, and fourths, which are recognised by the ear as concords, can be produced by stopping a vibrating string at the points dividing it into portions represented by 1 : 2, 2 : 3, and 3 : 4. They did not acknowledge our favorite major ⅗ as a concord, the proportion being more complex, *viz.* 4 : 5 or 5 : 6; and indeed if the major ⅗ on our instruments be tuned to its full height of two

full tones, it sounds sharp and very disagreeable. In this as in most detail we can follow and understand the Greek theory. When Aristotle tells us that the middle note of the scale is that to which the melody always returns, he is evidently speaking of the unaccompanied melody, and there are scores of our melodies that move up and down round this keynote, which may in these cases well represent the central note of the scale.

It is not possible for me to delay longer on this topic. I therefore sum up the result thus: the Greeks had a music to some extent homogeneous with ours; they attributed to its varieties great and direct effects on the morals of men. Seeing that in all their other arts they were so singularly modern and reasonable, it is surely well worth the careful consideration of educators whether similar effects be not latent in our music, *e.g.* whether the study of Handel, Corelli, Palestrina, may not have a strengthening effect on the mind, whereas the study of Chopin, of Verdi, even of Beethoven, with all the vague *Weltschmerz* which they contain, the unsatisfied longings, the unreasoning discontent, the suspended harmony, may not contribute directly to the vices of modern society, vices not unknown in the fashionable cities of this Commonwealth.

We now turn to the subject of household furniture and decoration, in which you will find that there are many and the best of our ideas borrowed from the Greeks.

We have not had the good fortune to unearth a Greek town of the best epoch from under lava or from beneath the débris of an earthquake. But it is likely that even if the ruins of Antioch were cleared of the great rocks that tumbled down upon it, in the many earthquakes of the early centuries of our era, some splendid houses might be discovered. So far, however, I do not know that, except at Delos, we have been able to find clear evidences that the wall decorations and the furniture of a Greek house were the same in kind as those which a century and a half of excavation has brought up from the dead in Pompeii and Herculaneum. These towns, as well as Naples, which was well known to Cicero as an essentially Greek town, were in close proximity to Puteoli, which again was for several centuries the great port for all Alexandrian luxuries since the second Ptolemy had made friends with the Romans. Through Puteoli, then, Greek artists and Greek designs made their way to that coast, and even the worship of Isis, and the frequent use of the ibis and the crocodile in their designs, show that the

Hellenistic artists had felt the influence of native Egyptian work, just as the workman of the French "Empire" felt the breath of old Egypt, when Napoleon's Commission brought out its splendid work on that mysterious country.

Although, therefore, all the little texts scrawled upon the walls by children are in Latin, I take it the furniture and decoration of the smart houses or villas uncovered are in Greek style, and may thus give us some suggestion of the inside of a Greek house. And let me add at once, that the discoveries of such ruins and remains at Rome in the time of the Renaissance moulded all the taste of that age, and produced house decoration, in direct imitation of the antique, which has been copied down to the present day.

NOTE.—I thought that I could not bring before the audience the character of this decoration adequately, except by showing some of the designs, and some of the furniture, on a screen. Some of the pictures were taken from Niccolini's magnificent *Art of Pompeii* (Naples, 1876–92), the Curator having allowed me to use the expensive process of photographing in colours, in order to show not only the design, but the rich colours of the Pompeian walls.

## VI

### SCIENCE: GRAMMAR—LOGIC—MATHEMATICS—MEDICINE

WHEN I speak to you of Greek Science, of course I use the word in the old and proper sense to include all strict reasoning, especially of the deductive kind, particularly therefore pure Mathematics, and not merely the inferences from observation and experiment which now commonly assume and even monopolise the title of Science. I often see in educational programmes Science and Mathematics contrasted as distinct things; which indeed in this case they are, only because the Science so-called is often unworthy of the name. Sciences of observation were, I think, not formulated by the Greeks except in the case of Medicine, in which their results are still quoted with respect; in the case of Hydrostatics, as Heron's great book shows; and in the case of Natural History, in which they made the first collection of facts that modern men of science can use; but we have lost what they said on their artistic observations, namely

their minute observations of the anatomy of the human body, which, as I have told you, their sculptors learned to represent with such accuracy that no modern anatomist can find a flaw in their work. This was done by careful external observation, for the practice of dissecting the human body would have seemed to them impious and horrible. But, whenever it was possible, the Greeks went back to first principles and framed a theory from which they deduced the facts; and this it is which has made their science so valuable. It will not be hard to show you how in Logic—the Science of Reasoning,—in Arithmetic, and in Geometry—the science of the laws of lines, of figures, and of solid bodies in space—they are our teachers to the present day.

It is well to approach the subject of Logic through the avenue by which the Greeks approached it, through the analysis of ordinary language and as the natural expression of thinking. The early poets and great prose writers had so far perfected the use of language that the Greeks in the catalogue of human acquisitions came to put their speech on a very high pedestal. Delighted with it, and despising all other tongues as barbarous, they convinced themselves that the Greek word adequately expressed the na-

ture of the thing it signified, and therefore that to understand their language properly was to understand the nature of things. Λόγος meant not only speech (*oratio*), but reason (*ratio*), and so, after first seeking to obtain clear conceptions of abstract ideas, they advanced to the structure of sentences and analysed speech in so accurate a way that their technical terms are our technical terms of to-day. When you talk of *infinitives*, or *genitives*, or *participles*, you are only using words borrowed from Latin translations, often mistranslations, of the Greek. You find these logical studies in their beginning, but by no means in their infancy, in the *Dialogues* of Plato. Whole conversations are employed in trying to fix the connotation of important moral terms, such as *holiness*, or *valour*, or *temperance*. And we also find in some of the dialogues an appreciation of the difficulties contained in the form of simple propositions, the meaning of affirmation or negation, and the nature of the deduction of one proposition from another.

But I need not detain you with particulars about these early preparations for science, when we have before us in Aristotle various treatises on the analysis of speech from its logical side, and the laying down of the laws of formal thinking with

such accuracy and completeness that nothing of importance has ever been added to it. We hear it often said that a single man apprehended and systematised these laws. That is not true; there were plenty of tentative essays before his time. But if there be one achievement which has made his name and fame everlasting, it is his treatment of the theory of Reasoning.

The mediæval universities knew this well, and so do the modern universities of Europe which are worthy of the name. I need not bear witness to the vast importance of common Logic by telling you that in my own youth nothing ever woke me up like having a good Logic put into my hands at the age of fourteen. For since that time I have been often teaching it and have watched its effects on hundreds of intelligent youths. Among all the subjects that we teach, not for the purpose of supplying mere facts, but for the purpose of training youth to judge facts and co-ordinate their knowledge, I know nothing that benefits the average student like the study of Aristotelian Logic. May I add that, so far as I know American education, the most serious defect I have observed in it is the small attention paid to this subject, and hence the vast number of your men and women who are unable to distinguish a sound

from an unsound argument, still less to point out where the fallacy lies.

There are here present, I have no doubt, a large number of people, otherwise highly educated, who, were I to propose a stock example for their criticism, would feel at a loss how to deal with it. Let me give an illustration. "Every hen comes from an egg; every egg comes from a hen; therefore every egg comes from an egg." Is this a correct argument? If not, where is it at fault? If you had all been trained in Whately's Logic, or any other Logic of the kind, as we were in our youth, such a question would present no difficulty whatever.

But if you have failed to derive this lesson from the old Greeks, your English ancestors were better advised. All the subtlety of the mediæval schools, all the disputations of their universities, were based on Greek Logic; and, if they often wasted their time on idle problems, it must always be remembered that by this means Europe was trained to accuracy and subtlety in argument, and hence to weigh vague and random theorising and to make men competent critics of any new dogma. We often remark from our side of the Atlantic how many wild theories in religion, how many sham theories in science, blossom and flourish in this country, inhabited though it may be

by a most shrewd and intelligent population. The simplest answer is to point to their ignorance of common Logic, and hence their liability to be deceived by the most vulgar fallacies. It would be easy to mention a book popular in this country, the pages of which any logically trained people would only use to wrap sardines or to heat a stove.

The Greeks do not parade their logic in their writings, though we know they were fond of subtleties; there are indeed examples of it in the *Sophist* of Plato, where this sort of thing is ridiculed in his travesty of two professional educators. But there are two great and solid proofs of the power which strict Logic had upon their minds. The first comes out in their literature. Wherever they undertake to argue an issue, whether political, social, or religious, their reasoning is clear and easily followed. They of course often start from traditional beliefs, which may not now command assent, but they always reason from these with clear and sober thinking. There was no more important cause for the permanence of that great literature. Its sound thinking has kept it from all extravagance and made it acceptable to educated men of all ages and nations. The second proof is my chief subject to-day: it is the pe-

culiarly logical character of Greek mathematics which has made this too the model of the scientific thinking of the world.

Let me go back to the infancy of Greek science and give you evidence for this statement. Setting aside for the present the metaphysical thinkers, who will occupy us in another chapter, we may safely say that the earliest mathematicians were the school of Pythagoras, and also that their work started (so far as they did not start from the highest of all—pure thinking) from Arithmetic. To this science Pythagoras and his school attached such importance that they were supposed to hold that numbers were the essence of the universe. If you think that such a theory is mere nonsense, I may tell you that I have often heard my colleagues, distinguished in modern science, discuss a theory, alive at the present day, that the so-called material universe consists of mere motion, without anything to be moved! At the root of these speculations lies the fundamental distinction of form and matter, of the definite and the indefinite; and the Pythagoreans had got a glimpse of the eternal truth that it is only through our intuitions of space and time, and through abstract concepts explicating these, that we can bring the myriad phenomena of nature

under intelligible law. It was an early anticipation, so far as we can explain it, of the great theory of Descartes, that all the universe could be reduced to mathematical relations, and these handled by algebra, which is in its essence but a very abstract and generalised arithmetic. If therefore all parts of the world stand in mutual arithmetical relations, of which the chemical law of definite proportions is the most signal example, the science of numbers must be the capital of every scientific man.

And remember that in Greek parlance this was the strict meaning of their *arithmetic*—a pure science, while they used the term *logistic* (or computation) for the working of practical rules. At the basis of their theory of numbers lay of course the one great assumption which makes the science possible—I mean the absolute equality of the units of any number used for the purpose of calculation.

This is not merely the abstraction from all their differences, as when I say that the present audience consists of five hundred people, regardless of the countless variations existing between the units of this crowd. It is the assumption of an ideal and accurate identity between each of the units, as to magnitude, which makes the expression of geometrical truths arithmetically possible.

The truth that $3^2 + 4^2 = 5^2$ applies not only to numbers but to lines, and probably suggested the geometrical proof to Euclid (1, 47). But it is only true if the units in the measurement of each line are exactly equal.

Starting from this first assumption, the Pythagoreans began to speculate on the peculiarities of the natural series of units in use among men, and to deduce from these general considerations various theorems, which they believed might solve the secrets of nature. At the very outset they were struck with the obvious contrast between odd and even, which Plato, following them, regarded as a fundamental distinction in nature. Had they been told that, thousands of years later, men of science would find that a most primitive and fundamental distinction among animals is founded on this difference, I mean that of *artio-dactyle*, and *perisso-dactyle*, actually called by the Greek words, they would have said that this caused them no surprise, as their arithmetic had long since laid down the distinction as a law of nature. As simple specimens of the sort of treatment that the science of numbers received from them, I may cite the following: The successive additions of the odd numbers produce

the squares of the series of even and odd.[1] The series of even numbers when added give us no such result, but rather this—that the addition of even numbers gives us figures which are the products of successive numbers differing by only one, *e.g.* $2+4=3\times2$; $2+4+6=4\times3$, and so on. These latter numbers were regarded as rectangles, when expressed in lines. It was by the discovery of the relation of the sides to the base of a right-angled triangle that they, so to speak, stumbled upon irrational numbers. If the two sides are each equal to 1, the hypothenuse is equal to $\sqrt{2}$, which is no integral number, but a problem in itself.[2]

All the results of this Pythagorean research lived through into the days of Plato and Aristotle and then, as we know from Euclid and Theon, into the learning of Alexandria. The importance recognised by them in the numbers ten and twelve was shown by the general adoption of a decimal

[1] *Vis.*: $1+3=2^2$; $1+3+5=3^2$; $1+3+5+7=4^2$, and so on.

[2] There is even an arithmetical proof mentioned by Aristotle that the ratio of side to diagonal of a square cannot be one of whole numbers.

If it were, the ratio will be that of two numbers in its lowest terms, and hence one must be even and the other odd, else both were still divisible by 2.

here $b^2=2a^2$. $\therefore$ $a$ is odd and $b$ even.

Now let $b=2c$ then $4c^2=2a^2$ and $2c^2=a^2$. $\therefore$ $a$ is even and $b$ odd, which is absurd.

system of notation, and of the division of time on a duodecimal system.

You will ask me what symbols the Greeks had which could enable them to treat arithmetical figures of any complexity, and on this I could give you now a very definite reply, but the details would lead us away from our subject, seeing that this notation was lost in the Dark Ages and was ultimately replaced by the Arabic numerals. But we now know that they had a very practical system of decimal notation based on the use of the letters of the alphabet; and the fact that several letters obsolete in the alphabet of the fifth century B.C. appear as symbols, proves that it was current as early as Pythagorean days. The sign for 6 is the *digamma*, that for 90 is the *koph* of the Phœnician alphabet, which is still found in Locrian inscriptions; the Phœnician letter known as *sampi* is used for 900. We know the practical management of this easy notation perfectly from the mass of accounts both private and public found on Egyptian papyri. It can express large numbers far more compendiously than the Roman system, often more compendiously even than ours. Suppose you desire to express any large number, say 20,050, here it is $^{\beta}_{\text{MN}}$; say 47,678, it is $^{\delta}_{\text{M}\dot{\text{Z}}\text{XOH}}$, and if there be small gain in simpli-

city here, I will give you 800,000 = 10,000 × 80 = $\overline{\text{M}}$. But these are practical matters, though without an easy notation even the most scientific thinkers could not make large progress.[1]

The next great step was to pass from arithmetic to geometry as the science of space and to show how far the same laws governed both.

If we are not well informed upon the beginnings of arithmetic, we are more fortunate in the case of geometry, and here, if anywhere, the old Greeks have been the acknowledged teachers of modern Europe. For we have in the so-called *Elements* of Euclid, composed most probably at Alexandria about 300 B.C., a summary of all that had been discovered up to his day, doubtless with many new things of his own. He had distinctly built upon his predecessors; he has before him all through his book a problem discussed in Plato, that of the possible number of regular polyhedra, and its solution forms the climax of his work. But he begins from the very beginning and builds up his whole doctrine with such accuracy that a flaw in the demonstration is hard to be found.

How did this great master attain to such per-

[1] Readers who wish to prosecute this subject further will find the best exposition of it in Prof. Smyly's paper in the volume of Essays dedicated to Prof. Nicole of Geneva.

fection? The form of his demonstrations does not suggest an intimacy with the logic of his immediate predecessor Aristotle; but from him he might easily have obtained the whole notion of a strictly deductive science, which, starting from the smallest possible number of primary data, proceeds to derive from these by strict demonstration proposition after proposition. Philosophers of our own time have often expressed wonder at the clearness with which these data are laid down. They are three in kind: first the *common notions*, which apply to all science and all practical life, such as "the whole is greater than its part"; secondly, the *axioms* peculiar to our intuition of space, such as "two right lines cannot enclose a space"; and thirdly the very simple *postulates*, which amount to the use of a ruler and compass with a pencil. There are besides very careful definitions, so careful that they are at first obscure, because they apply to the ideal construction of the mind in its intuition of pure space and do not concern themselves about the flaws of actual figures. Thus his "point which has no parts" is not nothing at all, but the minimum of definite place; his right line, "which lies in the same way (ὁμαλῶς) between any two points taken upon its length," is simply unity of direction. Every

other line varies in direction in some of its successive parts. This is a direct appeal to intuition, without which we can make no beginning in the science of space. Such also is the axiom about parallel lines. Such is also the proof by superposition, to show that two triangles, if some of their measurements be the same, must wholly coincide.

But I must not attempt to give you a lecture on the *Elements* of Euclid, of which some of you may have evil recollections. For it is the misfortune, as well as the glory, of a great work not only to be repeated for centuries, but to be parroted and travestied by those who merely accept its greatness from the voice of ages, and who come to think that the words of inspiration only require blind repetition to instruct men. So if Euclid has become in many classical schools a sort of amulet or fetish (which must for common decency be put in the programme but which may be learned by committing the proofs to memory without any intelligence) such a misfortune is not the fault of Euclid, but the most pathetic tribute to his genius. Let me also add, for the benefit of those of you who have never seen more than six books of the *Elements*, and who probably thought six more than enough, that these are but the intro-

duction to the discussion of higher and more complex questions, which show the large advance made by the Greeks in this science, and which explain also how in other arts, such as architecture, there is no defect for want of scientific accuracy. Books VII—X are not on geometry, but on higher arithmetic, and even treat, as in Book X, of incommensurable or irrational quantities. With XI he begins to teach solid geometry, the measurement of pyramids, cones, spheres, and the like, ending (XIII) with the discussion of the five regular polyhedra, of which Plato had long since spoken.

From the great sequence of discoverers and teachers of pure mathematics, I need only here pick out three immortal names: Apollonius of Perga, living about 200 B.C., whose geometrical treatment of conic sections is, I am informed, a splendid monument of genius, which would still be the basis of modern study had not the treatment of these figures by analysis entirely superseded the geometrical method. Then there is Pappus in the second century A.D., who gives us in eight books a review of all the previous masters, with important additions of his own. The third name is Diophantus, who lived much later, perhaps in the fourth century, and whose work

is considered the first great step toward the science of Algebra.

All these speculations were developed in the direction of mathematical physics by Archimedes, Heron, and other great men of the Alexandrian school. The triumphs of Archimedes in mechanics astonished the Romans, who, in the defence of Syracuse against their attack, found him equal to a host. But how little Archimedes confined himself to practical problems is shown by his famous method of determining the area of a circle by approximation, by inscribing and circumscribing polygons of a great number of sides, which can of course be treated and measured as a complex of triangles. This is still, I am told, the proof admitted by modern mathematicians as the best.

The works of Heron show not only an excellent practical knowledge of mechanics, but of hydrostatics, from which he deduces a number of most ingenious inventions, such as our penny in the slot, and even the construction of a whole scene acted by marionettes moving by a most elaborate hidden machinery. It[1] is a fine specimen of his ingenuity in using the ordinary mechanical contrivances. He postulates a tall

[1] Heron, περὶ Αὐτοματοποιητικῆς, caps. iii. and iv.

hollow basis, adorned with pilasters, and having an architrave, with boards covering its upper surface. Over this stands a little round temple, visible from all sides, with six pillars. It is covered with a conical roof, and on the apex is a figure of Victory with outspread wings and holding in her right hand a garland. Under the centre of the roof stands a figure of Bacchus, holding a thyrsus in his left hand, and a cup in his right. At his feet lies a little stuffed panther. Before and behind Bacchus, and outside the temple, stands an altar with dry shavings of wood. Also on each side, outside the temple, a Bacchante, in a proper costume and attitude. The whole concern being set up at some suitable spot, the exhibitor will retire, and the automatic machine will presently move forward to a fixed spot. The moment it stops, the altar fire in front of Bacchus will light up, and from his thyrsus will flow milk or water, and from his cup wine will be poured out on the panther beneath him, the pilasters beneath will be adorned with garlands, the Bacchantes will dance round the temple; drums and cymbals will be heard. When this noise ceases, the figure of Bacchus will turn round to the other altar and all the movements be repeated in the other direction. As soon as this has happened

the second time, the show is over, and the whole machine will return to its original place. We have felt bound, he adds, to make the measurements (which he gives) small, for if made large, the suspicion naturally arises in the audience that there is a man inside the machine producing all the movements. This precaution, then, should be observed in making any automatic machine.

He then proceeds to give in great detail the construction of this machine. It is as ingenious as any construction of the present day, but cannot be presented to you without a series of figures, which are given in his book. Any of you may read it in the Greek (Teubner text), to which is added an excellent German translation. It will be enough to mention that the lighting of the altar fires is done by concealing a lamp inside the altar immediately under the wood, and by withdrawing a metal plate which separates them. The flowing of milk and wine is produced by concealing two little reservoirs in the summit of the building, and leading the liquor by pipes down the inside of the pillars, and up the inside of the figure of Bacchus, so that, when the cocks are turned by machinery, the milk and wine flow and rise to the level of the thyrsus and the cup, which are set underneath the level of the cisterns.

It is evident enough that people who could do these things were capable of inventing the *sakia* now in use throughout Egypt, where a horizontal wheel worked round a capstan by oxen moves another set perpendicularly, at right angles to it, furnished with jars, which get filled below and, when they pass over the highest point of their revolution, are emptied into a water course, and so irrigate a higher level. This is well known to have been the invention of these Alexandrian mechanicians, whose theory had long preceded their practice, and whose applications of science they never valued so highly as their pure speculations.

Perhaps before leaving the subject I should tell you what was the moving force in the automatic machinery. It was a weight suspended in the air by a rope over a pulley, which, as soon as it was allowed to sink from its support, made the rope, wrapped round the axle of a large wheel, move the wheel, that was in its turn connected with other wheels. With very great and ingenious contrivance, as the machinery was all carefully concealed, the exhibitor could take his seat among the spectators, and make the ignorant believe that the whole effect was produced by some magic.

Nor were the laws of optics and the correction of the illusions of sight neglected. Euclid wrote a work on the subject which is now lost; but the praise of it by competent men of the Alexandrian school shows that it was on a level with his other scientific productions. To our educated public, the work of the Greeks in most fields is known at least by hearsay; the great library of Greek mathematics, scores of volumes, some of which are only quite recently published, is, except for Euclid, absolutely unknown. Yet from it is derived not only the scanty knowledge of science that filtered through the Romans into Western Europe, but also that adopted by the Arabs, and which in translations from Arabic versions came from them into awakening Italy and Germany and France. But let me add that now, when their discoveries in pure mathematics are being weighed by the light of expert knowledge, we are assured by all those really competent to judge that in no field of learning have the old Greeks shown their amazing originality and acuteness more signally than in higher arithmetic and in higher geometry.

The great fathers of the exact sciences are therefore in arithmetic the Pythagoreans, whose history is too obscure to mention from it any single name

before Archytas, Euclid, and Theon of Smyrna; in geometry, Euclid; in mechanics, Archimedes; in conic sections, Apollonius of Perga; in hydrostatics, Heron; in astronomy, Eudoxus and Hipparchus; last, but not least, in higher arithmetic and algebra, Diophantus; all of these were, moreover, men who did not confine themselves to any single department, but promoted accurate thinking in many. These, and others hardly less great, have left a record and a legacy to posterity second to none in its mighty consequences.

But among them all Aristotle stands out as the "master of those that knew"—the man who attained in the Middle Ages such celebrity and authority that he narrowly escaped being canonised as a saint in the Roman calendar. If that distinction really belonged to the benefactors of mankind, I know not that any man ever lived who had a better claim to it. For his life and activity mark an epoch not only in the progress of many sciences, but in the general culture of the human mind, to which I know no parallel. He was brought up under the influence of the Socratic method of inquiry as perfected by Plato, but, though in some popular works (now lost) he adopted the dialogue as the correct method of

teaching, there can be no doubt that the sober and practical tone of his mind made him despise all the delays and delights of character-drawing, and of spinning out the subject, for what we have from him is pre-eminently plain and scientific in form. There is seldom an unnecessary sentence; if there be a metaphor, it is a mere flash of colour across the cold severity of his argument. He writes like a man who had no time to waste and a vast world of subjects to teach. If it was still an age when the sciences had not entered upon the path of observation and experiment, but were philosophical speculations, Aristotle did more than any man to establish a separation between philosophy and science, while fully recognising, what in our day most scientists ignore, that positive science without a sound knowledge of philosophy is apt to run into fatal mistakes.

Of course this immense programme which Aristotle set before him could not be carried out without large collaboration, and so we know that, as Plato seems to have underrated such collaboration, and thus have failed in fruitfulness among his pupils, Aristotle, who was not chosen as his successor by the school (I suppose as usual there were jealousies among the commonplace and docile pupils toward the great original thinker),

formed and stimulated a band of helpers, who gathered special observations in botany, mineralogy, zoölogy, physics as the science of nature, and others who put into shape his views on rhetoric and on poetry, on ethics and on theology. We have, in my opinion, a new specimen of such delegated work in the now famous *Constitution of Athens*, which was known and quoted as Aristotle's through later antiquity, but which is rather the work of a pupil and not a brilliant one. But then we know that Aristotle either wrote or brought out 158 of these tracts on Greek constitutions. To this I shall return in a subsequent lecture.

Theophrastus, Eudemus, and Aristoxenus are among the best-known names of these helpers, and from these we have valuable work extant. Physical geography was entrusted to Dikæarchus. All these researches were carried out in the same spirit, and with that unity of purpose that marks a school. There was apparently but one division of all the domain of science in which Aristotle did no original work, and yet his contribution to it is not to be underrated. This was the field of pure mathematics. For we know that he entrusted to his ablest pupil, Eudemus the Rhodian, the task of writing the history of what other

men had done in this field. These books on the history of arithmetic, of geometry, and of astronomy (then called astrology) were well known and valued, and the modern critics declare that whatever is now known about the earlier development of mathematics was derived from this pure and rich source. Still more remarkable is it that this, the part of the edifice to which Aristotle himself did not contribute, should have been the only one that took root and flourished without any period of corruption or decay. As to Aristotle's personal competence in this matter, I am assured by the best mathematicians that his not infrequent allusions to mathematics, by way of metaphor or illustration, show a clear and sound understanding of the subject. It is not, therefore, the vagary of an idle admirer, but the deliberate expression of a weighty judge, when we learn from him in his Discussion on Beauty—which he, being a Greek, of course seeks in form, symmetry, and proportion—that the highest and noblest examples of earthly beauty are to be found in mathematics.

Euclid was almost the contemporary of Aristotle, and so the Peripatetic Mathematics found at Alexandria a new home and a mighty development, which lasted for centuries and is not stayed

to this day. But the rest of the vast system of Aristotle seems, after about two generations, to have fallen into incompetent hands. The activity of the Greek intellect passed into other channels and became again purely philosophical and ethical instead of scientific, as I shall show when I speak of the Stoic and Epicurean systems.

But there was another branch of practical science which, if not created by Aristotle, was certainly promoted by his studies in zoölogy and botany. We still regard these sciences as a necessary introduction to medicine, and we may be sure that in old days the order of such studies was not different. The distinction of being the father of rational medicine need not be added to the other crowns which adorn the great sage. Both Greeks and moderns are unanimous in awarding that honour to Hippocrates of Kos, where there was an old guild of physicians, of which he was neither the first nor the last of his name. Hence the works now known as those of Hippocrates may not all be the actual writing of one man; for as with Aristotle, so with Hippocrates, there was a school, and the pupils followed in the master's path. But there is no doubt whatever as to the character and tone of his teaching.

We find even a literary grandeur in his prose, that is not the writing of any but a great master. The famous opening of his *Aphorisms* is probably known to most of my hearers. But it is a puzzle to translate without dull amplification. Here is a paraphrase: "Life is brief, yet craft grows slowly; the right time is instantaneous, yet experience is treacherous, and decision burdensome." As is the style, so is the thinking out of the problems before him. Starting from hygiene as the proper basis of medicine, he thinks those should be regarded as the earliest physicians who improved the food of primitive men by crushing grain, by cooking meat, and by selecting edible vegetables. From that time onward, there was growing up an experience of what was healthy and what the reverse. It is this experience which he seeks to systematise by careful observation and so to establish laws of hygiene, and the probable natural prophylactics or remedies afforded by air, water, and climate. He analyses with care the proper aspect for a town and decides (in the latitudes which he knew) for the eastern as the best and the western as the worst. He discusses the quality of the water supply, and lays great stress upon its altitude. He sets down careful clinical records of cases of fever—typhus, puerperal, malarious, and

the like. The results of this rational treatment of disease were far-reaching and permanent. To cite to you the cloud of witnesses would be mere waste of time. But I will take one instance, closely related to the history of my great college and of medicine in Ireland.[1] The founder of the College of Physicians in Ireland under the Cromwellians and Charles II. was John Stearne, a grand-nephew of Archbishop Ussher, himself also a theologian and metaphysician. Driven out of Ireland by the stress of the Rebellion of 1641, and educated in all the medical learning of Cambridge, he returned with the Cromwellian restoration of order and became not only a Fellow of his college (along with some eminent Puritans from Harvard) but a distinguished practitioner in Dublin. By his influence was founded the Royal College of Physicians, once an adjunct to the University and ever since a great and dignified corporation, which has for many generations contributed eminent men to medical science.

But Stearne, like Hippocrates, not only practised; he wrote works on life and death; he was a theorist and a philosopher. This man, writing from the highest standpoint of Cambridge and

[1] See my *Epoch of Irish History*, last chapter.

of Dublin in the middle of the seventeenth century, tells us over and over again that the works of Hippocrates are wellnigh infallible, and are the only sure guide to medical science in his day.[1] The causes of this attitude are not far to seek. All mediæval medicine had been ruined by the admission of supernatural influences, special interventions, the action of evil spirits, the conjunction of hostile constellations, and other rubbish at which we now smile, but which men of science then deplored. The first great feature in Hippocrates is the utter ignoring of any such influences as the special causes of disease or cure. He is afraid of no ghost or goblin, he never mentions an incantation. And here is a momentous passage, which probably few of you have ever read, that expresses the mental attitude of his school. He is speaking of a class of patients affected with impotence who are venerated among the Scythians and even worshipped, each man fearing for himself, as he attributes the sickness to a special visitation of his God. "Well now I also think that these diseases are of divine ordinance and so are all the rest, but not one of them more

[1] His theory is laid down in several now forgotten books brimful of learning. It is the theory of four fundamental harmonies, or elements, the relations of which produce in every body health and disease.

divine or human than the rest, but all are homogeneous, and all from the gods. Yet each of them has its nature, and nothing happens without a natural cause." He then goes on to explain the disease from the practice of too much riding, and observing that it attacks the rich more usually than the poor, because the latter do not live on horseback, he argues:

> If this disease were indeed more divine in origin than the rest, it ought not to attack the rich and well bred among the Scythians, but all alike; nay rather the poor in preference, if indeed the gods delight in honour and service from men, and show them favour accordingly. For it is but natural that the rich should offer many sacrifices to the gods as they have both wealth and honour; but the poor less so, either from want of means, or want of good will toward the gods who have not favoured them, so that the poor ought to be specially subject to punishment for their transgressions or mistakes. But as I said before, this disease is heaven-sent like the rest. For everything happens according to nature.

This was the spirit that died out when the Greek world decayed, and Europe fell a victim to ignorance and superstition. Then came the heyday of miraculous images, of relics with power to cure, of pilgrimages, of intercessions, of all that mental degradation which the Mediæval Church, far from repudiating, used for its own purposes.

And so the resurrection of medical science was connected with rebellion against the Church. Among every three physicians, are two atheists, was the word, and even the pious Stearne, whom I have mentioned, preaches a purely Stoic creed, and systematically ignores all the rites of his church.

Hippocrates and his school had in their day to combat similar superstitions, just as the scientific medicine of our day has to deal with Lourdes and with Christian Science. Within the last few years, we have recovered from oblivion the ruins of the temple and town of Epidauros, where the god Æsculapius had a famous shrine, and where hundreds of pilgrims assembled to seek cures for their several ailments. Their recreation was as well looked after as in any modern watering-place; the theatre was the most splendid thing of the kind in Greece, and there were porticoes, and baths, and groves to secure that comfort and idle amusement which have a great effect on health. But as we know from the ridicule of Aristophanes, corroborated by numbers of inscriptions commemorating cures, the method of these Asklepiads was far behind those of Kos; it was superstitious and not scientific. Dreams and omens, charms and ceremonial acts still stood in the way

of sound hygiene and careful clinical observation. Not that I deny the occurrence of cures under such treatment. The most sceptical examination of the annals of Lourdes shows that mental influences will cure not only mental diseases, and diseases known as nervous, but even those that seemed absolutely physical. And what the Blessed Virgin does for the faithful of Lourdes may doubtless be done by the influence of more human and tangible causes. These admissions, which I make freely, will not change the opinion now held by every true man of science. It is the opinion of Hippocrates and his school, and that which he sought to enforce by his theory and his practice. The great truth that work is what exhausts the human frame, and that food supplies this waste, was laid down clearly in their practice. The equally important principle, that no organ will keep in health and vigour without exercise of its natural function and that if disused it will shrink or decay, was also clearly pronounced. They even guessed that the greatest problem of medicine (which they failed to solve) was the passage from inorganic into organic substances.

It is of course idle to say that these practitioners were not encumbered and shackled by many false guesses, many pretended discoveries, many

groundless speculations of their predecessors. But as the famous oath, which every practitioner in the school of Kos took, expresses clearly the high moral aim with which even now the physician enters on his noble work, the solemn declaration that he will not abuse his influence or intimacy in any house for selfish or immoral purposes, so in their scientific aims these Greeks sought to advance human knowledge by recording honestly their observations, even by telling of their failures, and by seeking to leave behind them such clinical work as might enlighten not only successors but opponents. If we compare this truly modest and scientific attitude with that of the doctors whom Molière scourged, and whose practice is but too well known to us from the minute account of their treatment of princely or even royal patients, we shall again come to the conclusion that where the Greeks failed to teach modern Europe it was not for want of rich suggestion and splendid anticipations of modern science.

I need hardly tell you (in conclusion) that I have not only confined myself to touching the fringes of these vast subjects; I have deliberately omitted large topics such as *optics*, and the correction of optical delusions, which

the Greeks attained by a subtle use of curves, not merely sections of a large circle, but particularly by the use of the conic section still known by its Greek name of hyperbola. I have said nothing about their astronomy, with its prediction of eclipses, its application to the calendar, and its use as the basis of scientific geography. Had I attempted to weave all these matters into the present lecture, I must have given you a kaleidoscope and not a picture. The main fact to be impressed upon you is that the great triumphs of the Greeks in art and in literature were not attained without a strict education in hard thinking and close reasoning. Plato is said to have made it the first condition of entering on a course of philosophy that the pupil should have studied geometry.

It was in accordance with that principle that in our older universities every student, though he were a specialist in classics, must show an adequate knowledge of mathematics. No man in Trinity College, Dublin, can take the degree in languages without having been taught, and having qualified in, pure mathematics, physics, and astronomy. That was the kind of education given by the Greeks. So far as we have departed

from it in our education; so far as we have substituted hurry for deliberation, quantity of facts for quality of knowledge, miscellaneous information for systematic thinking, so far we have rendered modern culture impotent to rival their excellence.

# VII

## POLITICS—SOCIOLOGY—LAW

THERE is no department of Greek life where we feel its modernness more intensely than when we come to consider political and social philosophy. The Greeks, and the Romans that learned from them, write and talk like thoroughly modern men; the discussions of Aristotle and the treatises of Cicero are quite fit to instruct us in the present day on the possibilities of organising human society. The rights of women, for example, are a topic with which they were perfectly familiar. Pass into what are justly called the Dark Ages or early Middle Ages, and you feel that the world has gone centuries back and not forward. The reign of superstition, the tyranny of the priest, the miseries of the churl, the childishness of art, the utter stagnation of literature, the substitution of fortresses for free cities, violence for law, savage rudeness for polished urbanity— these are the astounding conditions of an Europe most of which once had enjoyed real civilisation.

Among other causes of this strange retrogression in history, not the least is the disappearance of Greek life and culture into the East, where Constantinople still adhered to great Hellenic traditions at least in law, in language, and in art. All that Roman life and thought had borrowed from Greece was unable to make Latin culture fruitful and permanent, because it *was* borrowed from Greece and not really assimilated; so it came to pass that, compared with the brightness and buoyancy of Greek culture, the reign of the Latin through civilised Europe was an epoch of standstill, of formalism, of intellectual barrenness, of ossification. So long as the Romans were mere docile pupils of the Greeks, they made great progress in the arts of life; as soon as they felt themselves the acknowledged masters of the world and came to look down upon their teachers, their inborn coarseness and want of genius began to reassert itself, and but for the influence of an Oriental creed, domesticated among them by the Greeks, they would have relapsed, along with their barbarian invaders, into intellectual insignificance.

When we inquire into the causes that made politics so developed a feature among the Greeks, we shall in the first place find, even in Homer's

societies, the habit of open discussion a leading fact in everyday life. There is a sort of instinct to have things talked over and reasoned out, so much so that the very king, who has come to a decision with his council, and has ample authority to fulfil it, will not do so without calling together an assembly of the soldiers in the camp or the free citizens in the market-place, and seeking to obtain their approval by acclamation. This assembly, called together to approve, without any power of voting or of reversing the prince's decision, is regarded by all historians as the embryo of the long-subsequent sovran assemblies of citizens in every Greek democracy. There seem even to have been assertions of absolute power in the mouth of the kings in some of the old texts of the *Iliad*, which were expunged by editors, certainly not those of Alexandria, to whom such an assertion could contain no offence, but by earlier editors who prepared the poems for the free cities of Greece.[1]

The next stimulant to the development of politics was the coexistence of many small city-states, with only a few miles square of territory, each a little sovranty where no king could maintain

[1] πάρ γὰρ ἐμοὶ θάνατος, said Agamemnon, according to the copy which Aristotle quotes.

the mystery of seclusion or the obstacle of a solemn etiquette, which Xenophon perceived to be essential conditions of the great absolute monarchy of the Persians,. So it came that the old sovranties, which Aristotle tells us had been hereditary and limited[1] as it were a model to later nations in constitutional sovranty, passed away, often without revolution, into aristocracies, which were the leading type throughout the civilised world both in classical and in mediæval times, so long as the mass of the people were too ignorant to take upon them the management of public affairs. Aristotle tells us that the masses easily remain quiet and contented, provided they are kept in employment and in comfort by the good management of the few. Such an example you are all familiar with in the Venetian Republic, which, like Carthage of old, maintained for a long period, without serious internal disturbance, a considerable empire with a population busy and rich by their trade.

Where the violence or the selfishness of the few in power who were descendants of the old families of nobles which had once been the council of the kings, or who had themselves been local chiefs—where, I say, the neglect or violence

[1] ἐπὶ βραχυγέρασι πατρικαῖς βασιλείαις (Pol.).

of these men produced intolerable hardships, we have sanguinary revolutions, at first usually under the leadership of an ambitious renegade or soldier of noble origin, who set the masses against the classes. Later, the masses were strong enough to make their revolutions by constitutional or semi-constitutional means, and so gained a political power which they could seldom maintain without putting to death or exiling the leaders of the nobles. A reader of Thucydides or Xenophon will recall the manner in which the exiles worked counter-revolutions, and thus stained the face of Greece with violence and bloodshed. These scenes of violence play so large a part in our Greek histories that you will wonder how any such people could be a model to others in methods of politics, and it is for that reason that I think it necessary to notice the matter. When we look below the surface we shall find that there were elements of order never eradicated, and that the crimes of the leaders of society did not infect the common-sense, or destroy the safety, of the mass of the people, until the general decadence in the days of Polybius and the Roman interference.

What is this evidence? It is not to be found without some reflection, for, as I have said, it is

below the surface. There is no commoner phrase in the mouth of Greek revolutionists, or in the mouth of those that dreaded them, than "abolition of debts, and redivision of the land."[1] Aristotle mentions these as the watchword of the mob-leaders. But when I was asked, years ago, by the late Henry Sidgwick of Cambridge, to find him actual instances of such a revolution in authentic Greek history, I well remember my own surprise, and his also, when I said there were none to be found. Some such things may possibly have happened in the great Sicilian troubles, when a tyrant drove out the old free population, and settled a town with the surrounding churls and his mercenary troops; but on the general face of Greek history, and in the records of the well known states, you will not find an instance.[2] The most radical measure to which I can point is the reduction of debts twenty-seven per cent. by Solon, who was a very conservative statesman, and one most anxious to guard the mercantile good character of his city. As there was no loss of public credit to Athens in his time, it is clear that the debts lightened by this exceptional pro-

[1] *Χρέων ἀποκόπη* and *γῆς ἀναδασμός*

[2] The abortive attempt of Agis III. of Sparta only led to his own ruin.

ceeding must have been only the debts of a class, probably those due from poor farmers or labourers to their oppressive landlords. If so, it was not more trenchant than the present land legislation of the English Government in Ireland and Scotland, where the annual rents of tenants have, in violation of old and formal private contracts, been cut down by the state, often as much as twenty-seven per cent.

The Greeks were great traders by sea and land and no trade can be carried on without assured public credit. Unless investments are fairly safe, no mercantile society can thrive. The ordinary rate of interest in Greece, twelve per cent. per annum, appears at first hearing to be evidence of insecurity. It is nothing of the kind. It was not higher than the average interest [1] at Rome when that dominant people held the trade of the world, and made themselves as safe as could be. The difference between that and our three per cent. arises from the general scarcity at the time of great fortunes in money, owing to the difficulty of transit and the imperfect knowledge of a token currency. Banks and bills of exchange they commonly used, but to lend money to citizens of a neighbouring state, living under different

[1] *Centesimæ usuræ*

laws and with strange courts of law, was never easy, and so the areas of lending and borrowing were not as they are now, a whole continent or even the whole globe. You might imagine such a state of things here in your country if each State was confined to seek investments within its own limits, in which case you might soon find a rate of interest for imported capital not lower than that among the Greeks.

There was another strong checking power which must always have moderated the revolutionary transports of the Greeks. It was the existence in all the greater cities of a large population of slaves. We know from the history both of Argos and of Sparta that this was a standing danger to the free population, and we may be sure that in many cases free men composed their differences, or at least moderated their victory over their opponents, rather than risk having both subdued by a foreign element.

You will tell me perhaps that the fact that all the Greek world held slaves is another antiquated standpoint, which prevents them from being fit teachers for modern nations. But to me that question does not appear so simple, and perhaps with the experiences of the last forty years, even the American public that has time

for reflection may have some doubts on the matter. So great a thinker as Aristotle felt quite clear about it; he believed that there were inferior races fit only to be controlled, not to control, and he held that it was for their good when these were coerced by the superior intelligence and education of Greeks. He does not express himself, so far as I know, about the many slaves who were Greek prisoners of war, but from his general views it is certain that he would not approve of this form of slavery. Let me add in this connection that he repeatedly says analogous things of those occupied with low handicrafts, such as tinkers or cobblers, which require all their time and leave them no leisure to educate themselves or to learn higher things. He thinks these workers wholly unfit to be in the governing class of any state, and maintains that wherever they gained power it was in an extreme democracy which soon displayed the vices of that sort of government.

You must remember that in the small Greek polity, which consisted of a city and a territory of twenty or thirty miles square, the expedient of choosing representatives locally and sending them to the central assembly was never felt to be necessary. The citizen must go himself to the assembly and spend his day there; he was

liable to be chosen (often by lot, that considers no convenience) for duties either administrative or judicial. It was evident that those bound to earn their daily bread must stand aside and permit the more leisured classes to do this work. This leisured class, moreover, was greatly enlarged by the existence of slaves, for even the poor Athenian had his manual labour done for him and so had the necessary time for attending public duties. The Greeks never dreamt of giving their judges or politicians large salaries, as we do, holding that the state had a right to claim the whole life and energy of its citizens. Against one another these citizens were amply protected by the laws; there was no protection against the demands of state, even when these involved the sacrifice of life itself.

Such being the general frame of mind among thoughtful Greeks and the great object of the most perfect state being to secure the happiness, and therefore of course the liberty, of the mass of its citizens, we need not wonder that they paid early and constant attention to the framing of their laws, so that these offered, first to the Romans (who used the Attic Code when drawing up the Laws of the XII Tables) and then to other nations, models of prudent legislation. All their theorists

further insisted, with no uncertain voice, that the success of any code of laws must depend upon the enlightenment of the public that uses them. I proceed therefore to speak briefly on three aspects of Greek legislation, the *criminal*, the *civil*, and what I may call the *international*, in order to make clear in how many ways the Greeks were our masters, so that we may still study their methods of government with profit. The criminal law naturally comes first, for the most urgent essential of civilised life is public safety, enabling the citizen to go about when and where he likes without fear of personal molestation, or even of being the witness of violence. The Greeks were so well aware of this that they did not think any polity civilised till men had wholly abandoned the habit of carrying weapons, and if Aristotle or Thucydides had been told that in America a number of respectable citizens of free states still go armed, they would have said, "That was once the habit in Greece also, but now we are civilised, and regard such a practice as essentially barbarous." If there had been any likelihood of its being revived they would certainly have made it penal, and such seems the proper course in any country where the losing of a man's temper may cause the losing of his life, as well as that of others.

In modern Europe we have happily reached that stage, and even in Ireland, where there are often people threatened for agrarian disputes, and protected by the police, the rest of the population walks about securely night and day, in crowded cities and in lonely wilds, without ever thinking of carrying a weapon.

The Attic law, which represents the highest, and also the purest Greek feeling, was extremely jealous not only of the safety, but of the dignity of the citizen, and any assault in the streets, even if it caused no dangerous hurt, was severely punished by the law. As in modern societies, even to touch a man rudely, or against his will, was punished as an assault, and if the man assaulted happened to be performing any official duty for the state, the offence might be considered in the light of *lèse-majesté*, or treason against the dignity of the state.

The penalty of death was indeed inflicted, especially in the older codes, with a frequency reminding us of the European codes of a hundred years ago. But as regards citizens there were two mitigations which made even these severe laws milder and more civilised than most of ours. In the first place, there was generally facility given to the man who was condemned to escape

over the frontier, and except in cases of great crimes against the state, extradition was not thought of. Exile was of course a severe penalty, for it meant living abroad as a foreigner, not protected by the safeguards that encompassed the citizens around him. Secondly, the manner in which the death sentence was carried out was infinitely more humane and polite than our abominable executions. The case of Socrates is no doubt familiar to you all. He was left free of chains to talk with his friends and the cup of poison was placed beside him, to be taken before the setting of the sun. Even the jailor is represented as a humane and civil man, who carried out his function with every consideration. I will not deny that these very advanced features in Greek law were in contrast to some still barbarous survivals; I mean the torturing of slaves and the severity of making a death sentence follow on the majority of one in a very large jury. But survivals of barbarism were but yesterday frequent enough with ourselves.

Let us now turn to the characteristics of the *civil* law, by which I mean the laws controlling the holding of property, the making of contracts, and bequests by testament. I cannot see in the many contracts we have from Greece, or from

Egyptian Greece, when settled by Greece immigrants, that the general spirit or the accuracy of these documents differs from those of our day, except that the penalties for breach of contract seem much severer than ours. In the case of a money obligation, the debtor who did not repay within a fixed date was commonly fined fifty per cent. for his delay. There may have been many cases of loans in kind, *e.g.*, of seed corn, where such a penalty was not unreasonable, for there are things which are very valuable at a certain season, and which after that must lie useless for many months. But on the whole I think the Greek idea of keeping a contract was stricter than ours, and the law more severe. Such was also the case with the Roman law, which was borrowed from the Greek.

In so cursory a review of a large subject, I can only select one or two points as illustrations, and speak of them as specimens of the general enlightenment of the age. I therefore turn to a particular class about which we now know a great deal, more particularly owing to a large discovery of documents which I was fortunate enough to make in 1890. It is the Greek will or testament. Lawsuits concerning such documents also form the majority of the speeches of Isæus, the collec-

tion of which has been edited with great skill and learning by Mr. William Wyse of Trinity College, Cambridge. It used to be thought that all this matter of testament was due to the Romans. It seems now tolerably certain that in this as in most of the other refinements of life the Romans only transmitted to us what the Greeks had taught them.

In most early states it is only gradually, and not without some jealousy, that the individual is permitted to bequeath his property as he pleases. At first, he is regarded as the member of a clan, to which his property reverts under certain fixed conditions; later on, the state controls the division of it among the immediate family of the testator, and will not permit any passing of it away to strangers, still less to those who are not citizens. Whether the Greek states ever left absolute liberty to their citizens in this matter may be doubted, the interest of the state being much more jealously guarded among these small polities than among the large modern States, when an occasional misuse of such a power does no grave public mischief, and only excites moderate censure. But the whole form of the wills we have in Egyptian papyri, and of which we have examples in stone inscriptions, such as the record

of the will of one Epicteta who bequeathed her estate to public and religious objects, is perfectly modern. Here I quote you the usual formula. First comes the date according to the years of kings or eponymous magistrates. Then "This is the will of Peisias the Lycian, son of X., of sound mind and deliberate intention. May it be my lot to live on in health and manage mine own property, but should anything human happen to me, I bequeath to my children so much, to my wife such and such things (often specifying the articles), I set free certain slaves, I set apart money for religious purposes. And I appoint as executors such and such people," in the case of soldiers in Egypt generally the King and Queen and their children; and then there follow the names of several, often seven or eight, witnesses.[1] These habits, which imply a settled society, with ordinary habits and traditions, had spread from Greece to Greek Egypt three centuries before Christ. There is no doubt that they spread similarly not

[1] The phrase of "sound mind and deliberate intention" (Νοῶν καὶ φρονῶν) points to what is told repeatedly in the speeches of Isæus; on questions of disputed inheritances, even if a will were proved genuine and fully attested, it could be set aside if proof were given of undue influence, such as lunacy, the effects of a philtre, or the cozening of women, even the testator's wife. The cases he argues might occur to-day, and be discussed in like manner.

only to the west, but throughout Asia Minor and Syria so far as they were not in these regions already in vogue. I will only add that if you desire to read how clearly and carefully a long case involving the claim of a Greek in Egypt against a native corporation was examined and decided, you will find it in the Papyrus I of Turin[1] which was published years ago by Amédée Peyron, and which ought to be republished and made easier of access. We have the whole final decision of the court extending over many pages of Greek. The record must have been found intact in the earthen jar in which it was preserved. It rehearses the fortunes of the case from its outset, forty years before the decision. It gives the earlier decisions and a summary of the new evidence adduced; and it sums up the whole and gives judgment for the native corporation against the Greek with a clearness which could not be exceeded by the Supreme Court in America. Every word of it speaks strict law and plain common-sense. It was a case of conflicting evidence, and this is weighed with absolute fairness. There is not a word of superstition, of appeals to the providence of the gods or to any authority beyond that of educated human reason. As such, it is a document

[1] In the *Transactions* of the Academy of Turin, 1826.

absolutely modern in the highest sense. This then was the tone of the civil law transmitted by Greece to succeeding centuries.

I now approach a larger subject, and one of even more permanent interest—the lessons of Greek history regarding the international relations of adjoining civilised states, or the relations of one stronger state to others of lesser force or size. The condition of Greece all through its early history affords an unique field for the study of international law; for these numerous small cities, as we regard them, were perfectly distinct polities or states, each living under its own laws and traditions, and as separate one from the other in idea as are the capitals of any two modern kingdoms. In practice the separation was even greater, for intermarriage between their citizens, or the acquiring of property by citizens of another polity, were against the spirit of the age, and were generally forbidden by law. The number, therefore, of treaties, of alliances, of quarrels between these city states was not only enormous, but offered every variety, so much so that if you look at any good edition of the earliest European work on this sort of law, the famous treatise of Hugo Grotius, *De Jure Pacis et Belli*, you will find that the great body of his illustrations is taken from Greek

history, and acknowledged as Greek in the margin of the text. Let us approach first the question of war.

Even from Homer's time, there was a growing feeling which softened the hardships of war between Hellenic peoples. Poisoned weapons were not tolerated, and if the prisoners became the slaves of the victors, ransom was very general, and according to Herodotus there was even an acknowledged tariff—two *minæ*—accepted throughout Peloponnesus for the release of such a prisoner. I will not pretend that the wars even of the Golden Age were not much fiercer and more cruel than the rose-water campaigns we now carry on, when the wives and children of the enemy are supported in comfort, and he is accordingly encouraged to prolong a conflict which only affects his personal convenience. For war is a shocking thing, and to sweeten it by such amenities is only to enhance its cost of life and of treasure to the victor. But if you were to compare Greek wars with those of the earlier centuries of modern Europe, say the Thirty Years' War in Germany, you would find the balance of humanity most decidedly on the side of the Greeks. The non-combatants in a stormed Greek city, though by the laws of war they became slaves, were in a far better plight

than the unfortunate people of a German town captured by the Pandurs and Croats of Tilly or Wallenstein. I gladly turn from this grievous subject. "War," says Thucydides, "is a stern taskmaker, and makes men's hearts as hard as their circumstances."

Let us enter on a more grateful and more instructive task, the international relations of Greek states in peace and particularly their political combinations or alliances for protection against external dangers. It was obvious that a number of distinct small city-states must be at the mercy of a strong invading force which could conquer them one by one, and that therefore combinations and alliances among them were absolutely necessary. Such combinations could also be made for offensive purposes, as was the case with the Homeric conception of the Siege of Troy, and so in after times many Greek theorists actually recommended this policy as an engine of conquest, the very conquest carried out by Alexander the Great. But for a long time, alliances were only made for the moment, and to ward off an imminent danger, and they soon fell to pieces again, owing usually to the reverting of both parties into a selfish and jealous policy of isolation. From the seventh century B.C., onward, the waxing

of the power of Sparta made a sort of semi-compulsory league among the smaller cities of the Peloponnesus, and later on, after the crisis of the Persian war was over, the Asiatic Greeks put themselves under the leadership of Athens. Let me call it by its technical name, *hegemony*. This was an alliance under a president state, which was to guide the policy of the league in war, but was not supposed to interfere with the several polities in peace. You all know how the leading power gradually encroached upon the liberties of the allies, who really became subjects paying tribute; and when they attempted reassertion of their former independence, it was treated by Athens as revolt, and crushed with military and naval force. The conduct of Sparta when she succeeded to the hegemony of Greece was in no way different; perhaps it was harsher, and so we have a vast amount of protest against the tyranny of these leading states, and their "enslaving" of the rest of Greece. They on their side pointed to the necessity of union to prevent foreign domination; they pointed to the labours and sacrifices the citizens of the leading state had undergone, to the security of the seas from pirates, to the increase of trade, and of the reputation of Greek civilisation, all produced by their efforts; but

generally this came in at the end of the argument: that having acquired their power they intended to keep it.

Here then was a great constitutional question and one still under dispute in the last century. Supposing that several independent states combine to promote common objects, and make a solemn league or union; is it lawful for any one of the contracting parties to withdraw from the union if it considers its liberties infringed? I need not to take into account the further complication, when some of the states involved were created subsequently by and for the union, in fact were daughters and not mothers of the union. You know how in this country that constitutional problem was only solved by a great war, and this was but the echo of the same kind of conflict endemic in Greece. Yet the tone and temper of the world had changed in the long interval. The creation and success of many great states led men to appreciate the advantages thus obtained, and though there was, and still is, a strong sentiment in favour of small nationalities coerced by the greater—you remember the sentiment of all the European press during the recent Boer war—yet on the whole the imperial idea is not unpopular. In Greece it was the reverse. From

the outset to the end, the right of the smaller members of an union to secede was always maintained in theory and produced fatal results in practice.

The very same problem assumed a slightly different form when twelve insignificant Achæan cities combined into the Achæan League which Polybius has made so famous. The council and governing officers were elected in an assembly convened in one of the cities, whither all the members of the League were entitled to go, but which of course only men of leisure could afford to attend. Moreover each city had one collective vote, so that numbers were of no direct consequence. The meetings were confined to three days, and to business prepared for them by the executive. The whole scheme (which was an early and excellent essay in Federation, much studied by the founders of the American Union) shipwrecked on the question whether single states had a right to enter into separate agreements with powers foreign to the League. Perfect internal independence was of course essential to Greek ideas, but that the power of separate alliances with foreign powers should be allowed, seems to us absurd. Nevertheless the sentiment of the Greeks here as elsewhere was in favour of this absolute

independence, and so the League was pulled to pieces by the interference of jealous or ambitious neighbours.

Thus you have a conglomerate of civilised communities, all speaking the same language and with similar ideals of culture, not separated by hostile creeds, and with the power, when united, of exercising a dominant influence upon the world around them; and yet their power and their development are paralysed by mutual jealousies and constant quarrels, resulting in frequent and desolating wars. We have no cases in Europe at all parallel except the condition of Italy in the Renaissance and of Germany in the middle of the last century. When I was a boy and we travelled in a carriage through that country (railways had not yet been introduced) we used in the course of a day to pass through a whole principality and across a border with custom houses, and a new flag, and often a new coinage. There were then, I believe, sixty-six reigning personages —grand dukes, electors, etc.—in Germany. You know how all were either absorbed or reduced to one empire, or allowed to live on as vassal states, to use rather a hard word, within the compass of a few years. That was what happened ultimately in Greece, where the Macedonian power

played a part analogous to that of Prussia, and made itself by a successful war against a foreign power not only accepted but popular. The important point in which Greece gives modern nations a further lesson is this; Revolutionary or extemporised monarchies in such a case will not succeed. The Greeks, especially in Asia Minor and in Sicily, where there was danger from foreign powers, had come to the conclusion that a monarch was necessary to combine them into a strong military and financial power, and they were therefore again willing to submit themselves to tyrants or despots, as they had been of old, when they wanted relief from the internecine disputes between the classes and the masses. There were some brilliant essays in this direction made, notably by Dionysius of Syracuse, and by Mausollus of Halicarnassus. But they failed to found a dynasty, even as the Bonapartes failed, in spite of their greatness and the benefits they had conferred.

Thus not only the achievements, but the failures of the Greeks may convey to us valuable lessons, because they constituted a thoroughly "modern" society and suffered from the weaknesses and vices of such societies.

As this last statement may seem to some of

you a paradox, I proceed in conclusion to illustrate it, by some observations on the condition of Greek society as described to us by Aristotle and by Polybius. The former, in describing his ideal (for he had not yet renounced it) of a small, well-ordered state, governed in the interest of the majority of the citizens by good laws and humane rulers, makes it his *sine qua non* that the middle class shall outweigh in public importance both the wealthy and the indigent. Now that was exactly the condition which in the days of Polybius was becoming rarer and rarer, nay, practically unknown. This was the very class disappearing rapidly from every state in Greece. And why? The economic conditions were changing, and owing to the great influx of gold from the East and other causes, living was becoming dearer every day. Luxuries were also coming to be regarded as necessities, and so for the poor who had the bribe of large pay and great license offered them in the mercenary service of Hellenistic kings, emigration became the rule, and the want of labour turned farming from the agricultural to the pastoral type. Hence the middle classes, which had no capital to work large farms, became poorer and the rich richer and more selfish.

And what was the remedy adopted by the

middle classes to maintain themselves in comfort? An expedient not unknown in this country and for not very dissimilar reasons. It was the limitation of families, the avoidance of the duty and cost of bringing up children, so that Polybius speaks of it as the signal feature of the Greece of his day—the strange barrenness that had come upon the once prolific inhabitants of the land. Such a misfortune can be avoided only when great immigration exists, and even then it results in replacing the old population, the cream of the country, by the scum gathered from abroad. There were no inducements for immigration into Greece and so the country which was once teeming with population sunk into somnolence and decay.

Could I offer you a clearer proof of the modern character of this civilisation, which had not only a youth and an age of gold, but then a silver autumn or a Martinmas summer, when Plutarch lived in his little deserted town, surrounded by a complete and terrible decadence? And it may not be out of place to remind you that even with many differences of age, of place, and of circumstances, the same moral causes that produce decay in one civilisation are likely to produce it in another.

The societies that fell into these vices were

not ignorant or uneducated. The average Greek public was probably better trained in the knowledge of great ideas and the enjoyment of great literature than any public nowadays. Grote said very deliberately that the ordinary Attic citizen who attended the assemblies where Pericles and Theramenes and Demosthenes spoke, and where many others of like culture joined in the debate—that such a man was better educated, in the political sense, than the average member of the House of Commons in his day; and Grote had attended to the business of that House for ten years of his life. It was then, moreover, an assembly of English gentlemen, of the middle and upper classes, with a strong aristocratic flavour. What language would he have used had he compared his Periclean citizen to the House of Commons of the twentieth century? But in any case, we may say one thing with certainty, and it is one of the greatest lessons which the Greeks have to tell us: Intellectual culture by itself is no certain antidote to decadence in any society—nay, not even in that of Boston, Massachusetts.

The moral conditions of refined Attic life in these dying days are best known from the remains, or from the Latin translations of the society plays of

the famous Menander. The life which Menander portrayed has been discussed and estimated in a chapter of my *Greek Life and Thought*, and you will there see at length how trivial, how selfish, how immoral, how ignoble that life was. If such was indeed the true character of Attic society in Menander's days, we may well congratulate the world that the Macedonian conquerer arose to show the world that there were greater ideals than to while away one's time in the rotten refinements of decadent Athens.

When I wrote that chapter, we were still dependent for our estimate of Menander and his society in the Latin translations, or adaptations, by Plautus and Terence, and there were those that thought the Roman adapters had chosen the trivial side of a society which might be not only refined but serious and thoughtful. The recent discovery of large fragments of four plays on a papyrus roll in Egypt has dissipated any such hopes. The same triviality, the same stupid repetition of vulgar and immoral plots and topics meet us throughout these scenes. If there be any moral lesson conveyed by the picture we here have of Attic society, it is this: that the slave and the prostitute were not only more intelligent, but less immoral than their masters. In all these

so-called pictures of life, not a single person of the least distinction appears—not a single philosopher, or politician, or poet, or man of letters, or benefactor—though we know that the walls of temples and cities were being covered with panegyrics of leading citizens and their civic and private virtues. Not a single problem of religious or political importance is ever discussed. There is not even, in the new fragments, any wealth of that vulgar proverbial wisdom, or sententiousness posing as wisdom, which was gathered from the plays of Menander by diligent collectors, and which, surviving in thousands of lines, has given him a false importance in the histories of Greek literature. But here, as elsewhere, the lapse of ages had separated the wheat from the chaff; the later scholiasts and commentators gathered from Menander the stray gems, as one might pick from the array of a gay but stupid lady the real diamonds with which she had adorned her worthless person.

In relation to Greek politics, which is our subject to-day, this is no idle digression. For it shows us clearly that the higher society of Athens had abandoned this great human interest and so had narrowed and impoverished their spiritual life. It is usual to repeat in our histories that

the growth of the Macedonian power, of the Hellenistic kings, of the Roman Republic, killed all possibility of any serious Greek politics, and that in consequence serious men were driven into anti-social philosophy at home, active men into mercenary service abroad. In Menander's day and long after it, there was still plenty of work for honest and capable men in saving the liberties and the dignities of their native cities. A century later, Polybius shows how the total ruin of Greece and the disastrous conquest by Mummius were mainly produced by the follies and violences of stupid and corrupt demagogues. But these demagogues were invested with official power by the votes of those that still practised politics, when the better classes had retired in disgust. If this disgust dated from Menander's time, then we can only reflect that those who have abdicated their influence in the day of their country's prosperity, are not likely to regain it when a crisis comes, and when the masses have found for themselves other leaders.

I have seen a very similar catastrophe in the Ireland of my own time. I have seen the old landed gentry, who had long lived a gay, idle, hospitable life, when their privileges and their properties were attacked by a dangerous agitation,

show such want of public spirit, such miserable mistrust in one another, such reckless folly in not spending time, money, and energy in resisting their plunderers, that they lost the sympathy of all their friends, and while they called on English influence to protect them, and railed against all concession and compromise, they have seen their land filched from them by successive legislative inroads upon their rights, and their fortunes ruined even by those on whom they relied to defend them. Many a time did I warn those about me of these inevitable consequences, but there I have seen another instance, and one which came home to me with poignant regret, of the miseries induced by mere incompetence. *Quem Deus vult perdere, prius dementat.*

# VIII

## HIGHER THINKING, PHILOSOPHY, SPECULATIVE AND PRACTICAL THEOLOGY

IN my last lecture I spoke of the small effect, or want of effect, which a mere intellectual training in the liberal arts might have upon the average morals of a large society. To-day I propose to take you into a higher atmosphere, and consider what occupied the élite of Greek society in their advanced education, and in their speculations on the nature of things. You must not underrate the enormous advantages the well-born youth then possessed in training his mind, as compared with the youth of to-day. In the first place, a very moderate income would keep a household in comfort, and remove all the grinding care which, in this our modern life with its myriad exigencies, torments so many respectable families. In the next place, the demon of competition had not invaded these states, nor was it possible to do as I and many others have done, to be a slave for some years in order to obtain a competence

by passing first in a single examination. In the third place, there was no object in travelling long distances. What was worth seeing, lay within easy reach. In modern life there is only Holland, and perhaps Northern Italy, which offers the same delights within short distances. The huge amount of time spent by Americans in travelling is perhaps one of the most serious obstacles to their intellectual advancement. If North America were compressed into one tenth its size, its inhabitants might gain some leisure for better education.

The obvious thing that will strike any intelligent American, who has only heard of Plato, and wants to make his acquaintance through Jowett's noble translation, is the amount of time these Dialogues waste in arriving at a conclusion. Nay often they represent a very long conversation which comes to no conclusion at all. Yet that feature is essential to all higher training of the human mind. You may appear to the vulgar to be wasting time, and yet it is not wasting time, but doing the best you can for a great object. The earth moving in its orbit need not delay its regular course because it revolves upon its axis, and causes its whole surface to enjoy the blessed light of the sun. And the next thing

you will find in Plato's Dialogues (the best exponent of higher education I know) is that the objects in view are not those of sense, or of the material needs of life, or of obtaining success in the world. They all, like Saint Paul's reasonings with Felix, have to do with righteousness and temperance, and judgment to come. But even this field, that of ethical inquiry, is not the highest to which Greek education attained. For their early teachers taught them to think about the universe and its constitution, the nature of mind, the nature of matter, and other high questions of abstract metaphysic.

A notable point about this Greek philosophy is that the priest or the enchanter has nothing to say to it. The sage was a layman, who need fear no pope, no ban of the Church, in using his reason freely upon the problems even of theology. There were indeed isolated cases, where a man who denied the existence of the traditional gods, or was supposed so to do, was pursued by popular indignation. Diagoras of Melos, called the atheist, was driven from the societies which thought such teaching dangerous; Socrates was prosecuted in like manner, because he was suspected of spreading scepticism among the youth, but he was executed only because he behaved in a manner highly

contumacious to the established order of the State. Had he defended himself in the ordinary routine, he would at most have been subjected to a fine. These isolated cases are only mentioned lest you should imagine that they were typical. Greek philosophy being secular, was therefore free.

The earliest thinkers, those of the Ionic school, set themselves to solve by speculation the very question which now engrosses our deepest researches in physics. They thought out, or they inferred from their observations, that "things are not as they seem"; they found out, what we have attained by long experiment, that the many qualities our senses perceive are not fundamental or primary, that as Descartes and Locke and Spinoza taught, mechanical composition and varying degrees of motion in minute particles of the same kind may produce wholly diverse impressions. The most obvious and striking of these to the ordinary man is the case of colour. Descartes had anticipated that the pace of the rotation of particles made the differences; we know now that it is not rotation, but vibration of ether, and so with variation in tones. But the differences both of colours and sounds are due to the more or less rapid motion of the vibration. This was what Thales and Anaximenes and Anaximan-

der felt when they said that the world consisted of one element, that moisture, caloric, ether, were the primitive stuff of which the world was composed. And these famous men were not mere metaphysicians, they showed their intellectual greatness in various ways. Thales actually predicted an eclipse, to the astonishment of his contemporaries.[1] He showed them that the lesser bear, ending in the pole star, was a better indication for the sailor to use than the greater. He solved the problem of measuring the height of an inaccessible object by comparing its shadow with that of a small one within reach. He gave valuable advices in politics. So that his metaphysic was both the source and the climax of a wide mental activity. So with Anaximander. He attempted the first map of the known world and made signal advances in astronomy. Anaximenes declared that eclipses were the concealing of one heavenly body by the interposition of another. These were great feats; but they were nothing in comparison to the bold attempts at solving the problem of the origin and nature of the world, wherein their speculations, often erroneous, nevertheless left a residuum of thoughts that were the seeds of all our higher philosophy.

[1] It happened May 28, 585 B.C.

If Thales laid it down that in all the varieties of plant and animal life there was a common element which was their real or original substance, Anaximander thought that caloric (or the igneous principle) was necessary to develop the original material. His book is lost, and his views not clear to us, but we know that his geological observations told him that our world had once been covered with water, from which land had emerged. He was moreover the first to maintain that nothing was eternal except the primeval substance of things.

> The cloud-capped towers, the gorgeous palaces,
> The solemn temples, the great globe itself,
> Yea, all which it inherit, shall dissolve,
> And, like the baseless fabric of this vision,
> Leave not a rack behind. We are such stuff
> As dreams are made on; and our little life
> Is rounded with a sleep.

In the largest sense, even applying it to the gods of the Greek Pantheon, did he assert this colossal doctrine. Anaximenes went further, and, assuming that the particles of ether are the most subtle in the universe, he set up the principle of rarification and condensation of matter, asserting that this was the one great cause of the differences in the bodies we perceive. This then was the

first expression of the doctrine of the Atomists, which has lasted to the present day.

It is a common piece of arrogance among experimentalists to say that these wonderful anticipations of modern science were mere gropings in the dark, supported not by experiment, but by what we should call superficial observations. The wonder is all the greater that these men should in their theories have gone to the root of the matter, and thought out the metaphysical possibilities of the composition of the world. Abstract thinking—theory—is after all the true basis of every great discovery. In complete disregard of the theological cosmogony derived from the old poets, they openly inaugurated the birth of a natural science engendered by pure and high thinking.

This is even more signally the case with Heracleitus of Ephesus. But I can only give you some of his marvellous anticipations in a few words; to go into any one of these systems would require a whole lecture, not a passage in this discourse. In the first place he agreed with both his predecessors, that one subtle element was the foundation of all nature and this he sought in what the vulgar call fire, but with him a far more subtle essence, never still for an instant.

From this all the universe had been evolved by a process of cooling, and had developed into earth, water, and the rest, but in the end these would return into their original condition, "so that the earth would be rolled up as a scroll, and the elements dissolved with fervent heat." This far-off glimpse of Laplace's theory, which postulates our whole planetary system starting from a revolving mass at white heat, is less striking than another that lays down the principle that there are endless motions in things which the senses cannot perceive, and that absolute rest is impossible in nature.

> The world was never made;
> It will change, but it will not fade.
> So let the wind range
> For even and morn, ever will be, thro' eternity.
> Nothing was born, nothing will die,
> All things will change.[1]

It is but yesterday that the newest physical philosophers have declared themselves for this doctrine, and tell us that every particle of matter is made up of lesser particles in perpetual motion. Heracleitus was no less clear on the relativity of the qualities of matter, which are good or bad according to the per-

[1] So Tennyson in a poem of his boyhood.

cipient, and from that he drew the conclusion that apparent contradictions may coexist and that all nature consists in a perpetual conflict between opposites. Nature is a state of war said he, using the term in a far deeper sense than did later men.

These amazing conjectures were set down in a quaint, picturesque, but abstruse treatise, which even Aristotle found difficult to grasp, but if ever a great imagination sowed seeds in the minds of men, which after long generations germinated into modern science, it was that of Heracleitus. His dark enigmas, seasoned with pessimistic utterances, with supreme contempt of the ordinary public, were always attractive and stimulating to keen minds.

The next great name in this magnificent series is Pythagoras, whose influence revolutionised not only the science but the politics and ethics of Greece, and created new ideals among men, higher and purer than those of traditional morality. But as I have already said something of him in a former discourse, I will hurry on to his contemporaries and his successors.

The founder of the great school of Elea, an old Greek colony of Ionians in the Italian bay south of Pæstum, was Xenophanes, whose main feature

was a bold criticism of the popular theology, as represented by the poetry of Homer. He could easily show the moral defects of the denizens of the Homeric Olympus, and hence inferring their unreality, he pressed home the great doctrine of the unity of the universe, whether ideal or real, and the identification of the Maker (if there ever was a Maker) with his work—a theory which has existed from that day to this under the name of Pantheism, and as such has fascinated the higher spirits even among the cold and practical Anglo-Saxons. This feeling of unity in all the world with the Eternal Cause of the world has indeed appeared in the far East in other and strange systems of philosophy; but never was the doctrine discussed with such variety as among the Greeks. Lofty poetry, hard logic, bitter controversy were all called in to support it, and among a clear-sighted, sceptical race, like the Greeks, so vague and transcendent a theory is far more striking and therefore more fruitful in its spiritual consequences, than when professed by mere ascetics or anchorites who have no contact with common life, and who will not condescend to argument. The Greek Pantheists of the early period were men of high character in public life, respected for their practical wisdom and their

literary eminence, and it was they that forced upon the world the astounding theory that not only are all the data of our senses illusory and vain, but that even the assumption of any number of original elements or substances is idle, and must terminate in the great *One*, which embraces them all, and merges gods and men, matter and mind, into that all-embracing Single Being, of whom a forgotten mystic in a later age (but still a Greek) has used this tremendous metaphor: the "gods are his laughter, the race of mortal men his tears."

The positive side of the doctrine was mainly due to Parmenides, of whom Plato speaks with greater respect than of any other thinker except Socrates, and it was clearly a further development, or urging to their extreme consequences, of the older theories which reduced all the various qualities of the world of sense to the manifestations of a single substance. But they had each made some one reservation and upheld one of the data of the senses, but each a different one. Was not therefore the inference clear that this was but a half-way house, and that what we call mind and matter are after all not radically distinct but only separate aspects of the primeval one?

If you think this old-world and idle speculation,

I need only refer you to Descartes, the father of modern scientific metaphysic, who held that his two universal factors, extension and thought, were after all but qualities of the one all-embracing substance which he called God; or I may refer to Spinoza, the spiritual pupil of Descartes, and the most important Pantheist of the seventeenth, or perhaps of any, century.

The positive arguments in favour of this subtle speculation, which to the vulgar public of any age must always remain absurd, were in the first place the untrustworthy character of our senses, which could be shown not only to be misleading but to give contradictory reports concerning the same thing; next the general consent of all thinkers that there must be something permanent and indestructible in the midst of all the changes of phenomena; then the inability of any perceived substance, such as water, or air, however subtle, to satisfy this condition of permanence, and to take a position superior to the attacks of rival theories. You must therefore abstract more and more from all qualities till you reach that pure Being, which is all and none, spirit and body, unity and infinity, eternal, indestructible, invariable, the source and substance of all that ever did or ever will exist.

You can well imagine how these splendid dreams were regarded by the clever and practical Greek public, as indeed they have been by average men from that day to this, whenever the great theory has been stated afresh by metaphysicians or by mystics. It was the special merit of the Eleatic Zeno (not the great Stoic who lived far later) to show the carping critic that the difficulties which had led the philosopher to discard the senses as guides to truth, can be raised in the case of the common facts of our everyday life, and that the scoffer cannot solve them. I lay stress on these intellectual puzzles, because they have occupied philosophers perpetually down to the present day, and in no particular case can we affirm more decidedly that the Greeks were the fathers of modern thinking. And do not for a moment imagine that because these subtleties lead to no immediate result, they are therefore barren. You might as well say that physical games and exercises are of no use, because they merely result in strengthening and improving the human frame and the human temper, apart from any further result. Now what were Zeno's puzzles? I will mention but the most obvious. Is it conceivable that sound should be made up

of non-sounding things? And yet this absurdity is demonstrable. Drop a single millet seed from your hand upon the grass. It will not make the smallest noise. Go on with a second, a third, and so on, till you reach thousands; it is so with them all. Yet if you turn out a cartful of such seeds, it will make a considerable noise. How is it possible, if each individual grain is silent? Again, you imagine that if two bodies are moving in the same direction, one slower, the other faster, the latter will soon overtake the former. It is not so, and can be proved impossible. Conceive the swift-footed Achilles trying to overtake a tortoise, and that he runs one hundred yards, while the other is crawling but ten. When he has completed his one hundred, the tortoise is still one ahead, when he has added this one, the tortoise is still $\frac{1}{10}$ ahead, then $\frac{1}{100}$, then $\frac{1}{1000}$, and so on *ad infinitum*, for it is mathematically certain that neither series can ever reach the limit, in the one case of 111, in the other of 11 yards. Therefore it is demonstrated that Achilles can never in all time overtake the tortoise.

But we may go even farther and say that the very idea of motion is inconceivable. Every moving body must move in time, and time is

divided into moments of time. At each moment the moving body must either be in the place where it is, or the place where it is not. The latter being manifestly absurd, the body must be in the place where it is. But then of course it is not moving, for motion can only be defined as a change of place. Continuous motion is therefore inconceivable.

I need not do more than mention to you, that these very problems, handed down by Zeno to the schools, formed the subject of interminable disputes for centuries, and if you even now, with all your boasted progress, take them in hand, you will not easily find a logical solution. Happily we are no longer in the condition of those mediæval pedants, of whom we hear that not a few went mad, or died of brain fever, because they could not reconcile the foreknowledge and foreordaining of things by God with the absolute free will of men. Nor are any of you, I sincerely trust, encumbered with the extraordinary fairness of mind of the mediæval ass of Buridanus which being set between two bundles of hay exactly and precisely alike, died of starvation because it could see no possible reason for preferring to eat the one before the other. Nevertheless, I trust you will appreciate that the mental

subtlety we inherit from the Greeks is no small part of our education.

But it is not merely in the hard logic of controversy that the Greek Pantheists have left a great legacy to mankind. If I mistake not, the higher poetry of these latter days is deeply indebted to that grandiose theory, that all nature is but one, that all things whether mute or speaking, whether still or moving, whether fair or hideous, are all the manifestations of the one great All, the ineffable substance which some call a world-soul, some the universe, some God, the supreme *One*, without variableness or shadow of turning, though only apprehended by man in myriad variations. You can find that view of things in Shelley, in Wordsworth, in Tennyson, and it is not too much to say that at their highest moments, and in their noblest verse, they are all inspired with this Divine intoxication. It is common to call it Platonism, and my old friend Mr. Shorthouse even wrote an essay to show that the respectable and orderly Wordsworth could hardly be called a Christian, so saturated was he with this Pantheistic feeling. His visions of the pre-existence of the human soul—these were indeed Platonic; his Pantheistic passages come from the influence which Plato acknowledges,

but which he does not allow to subjugate him. Wordsworth is the most uneven and often prosaic of poets, but in his greatest moments he too feels that intercommunion of all nature which is unmistakably Greek and not English—

> A sense sublime
> Of something far more deeply interfused,
> Whose dwelling is the light of setting suns,
> And the round ocean and the living air
> And the blue sky, and in the mind of man,—
> A motion and a spirit, that impels
> All thinking things, all objects of all thoughts,
> And rolls through all things.

Time fails me to go into the fascinating subject of the Pantheism of Tennyson, and of other of our poets. It is indeed only spasmodic, but it is there, and is a strange note in the singing of an otherwise tame and prosaic race.

Let us now return to the great procession of the sages of Hellas. It does not seem necessary to delay long upon Anaxagoras and Empedocles, though both were very great figures in their day. The principle feature in both their systems was that they felt the want of some ideal, or semi-ideal principle to work as a cause in producing the changes in nature. Anaxagoras postulated the original particles to be very diverse in quality

and to enter into the composition of ordinary things so as to make up what we call their various qualities. The food we eat, for example, affects all the various parts of human bodies, however different, such as the tissue of the flesh, the hair, the nails, the viscera, because there is in this food, which is made up from corn or other vegetable and animal substances, an assortment of particles each of which contributes to nourish the member or part akin to it. If we ask how external bodies are brought together, and made up into unities, Anaxagoras felt so keenly the necessity of a moving cause that he set up his famous *Nous*, which we cannot translate by the word *mind*, for it was still a material cause, though far more subtle and active than the rest, such as we now imagine ether to be. But even so, Aristotle speaks of Anaxagoras as a great and fruitful innovator, inasmuch as he saw that brute matter cannot begin to act or even to move without some non-material or spiritual, or ideal cause. From what we know of Anaxagoras, he advanced but a little step in this direction himself; he was only groping his way, but to have been pioneer to Plato and to Aristotle is itself no mean praise. In a similar direction, the famous Empedocles postulated the principles of Love and Hate,

much as we now postulate Attraction and Repulsion, to explain the varieties, and the movements, in external nature.

Observe that not one of these Ionic philosophers had yet asserted the great contrast of mind and matter, the still greater contrast of a Divine architect and his work. The phenomena of mind seemed to them but to be the result of a subtle and more impalpable combination of elements not differing in kind from the nature of material substances. So when a wholly different school came to review what the ancients had accomplished, the *Nous* of Anaxagoras, and the Love and Hate of Empedocles, were hardly felt to be steps in advance. In fact for a while the development seemed to be the other way, for the last great theory we have to notice, before we come to the ideal philosophy of Plato and his followers, is more decidedly materialistic than all its predecessors. That is the famous Atomic theory of Leucippus and Democritus, which maintained that the universe contains no elements but atoms and the void, the atoms being hard physical particles of only one quality but capable of myriad mechanical combinations in and by means of the void, or empty space which existed more or less in every body. As a hypothesis, this is the

simplest that has ever been offered to explain the constitution of matter; it has consequently lasted all through the Renascence of learning into the newer age and has formed the very basis of the modern science of chemistry. The original atoms were not conceived as mathematical points, or as having any spiritual quality like the monads of Leibnitz; they were merely very small, impenetrable, and differing in figure. It was the density of their combination and hence the small fraction of void spaces in any body which made the difference of specific gravity, and the difference of their shape produced other qualities.

But how did these atoms come together? Here Democritus showed a prophetic clearness of sight which may well astonish modern critics. He regarded motion in these atoms as a primal fact, probably deriving it from the theory of Heracleitus. He held that as these atoms collided in the void, not always directly, but obliquely, the striking and the struck assumed a rotatory motion, and so established vortices which either attracted suitable atoms or rejected others by the centrifugal force of this rotation. Thus were constructed not only the great spheres that we observe in the sky, but all the ordinary objects around us. Into his explanations of the causes

of the irregular forms of these objects I cannot enter, by reason of their intricacy. But to what consequences his theory led him may be told you in a sentence. He maintained, with the imagination of a great scientific mind, that there were an endless number of world-systems through space, differing merely in magnitude, some furnished with several moons, some in process of becoming, others, owing to collisions, in process of destruction, some of them wholly deficient in moisture, and hence devoid of animal and plant life. These are all consequences which we have drawn from the use of the telescope and even the spectroscope, but which this wonderful man reached by way of philosophical thinking.

Aristotle makes it his chief objection to the Atomic theory that it is purely descriptive of phenomena without assigning any cause for the primeval motion of the atoms; that it recognises no Architect, no Demiurge who set the myriad crowd of particles into motion, and then into regulated action. But Aristotle was misled by an assumption which has infected philosophy down to the present day—the assumption that a state of rest is prior to, and more natural to matter than a state of motion. This prejudice did not mislead Democritus, though it is an idol not only

of the cave, as Bacon would say, but also of the forum. We have been misled and deceived by relative want of motion, to consider that until disturbed by an active impulse matter occupies a fixed place. But now, I would almost say since the twentieth century dawned, this old fallacy is giving way to the newer conception that there is no such thing as rest in nature, nay not even within the particles of any solid body. So then the primal assumption of the Greek thinker that motion is the natural state of matter was a wonderful anticipation of science, and shows once more what giant strides the human race may make by thinking as compared with the mere recording of experiments. Even now, when students of experimental physics are degenerating into mere mechanics, who seek to interrogate nature by the use of delicate machinery, and carefully recorded occurrences, I am assured by those in our great University who have been compelled in earlier life to acquire a sound knowledge of Greek philosophy, that the study of the old *Hylozoists*—the Ionic schools we have reviewed—is the very best introduction to the higher task of framing theories from experiments, and when I have heard read in the schools essays written in ignorance of these theories, I have

often wondered at the absence of scientific logic of consistent thinking, of clear imagining which characterises the modern scientist. And when we are faced in our universities by the gigantic demands of modern scientists for laboratories, machinery, upkeep, and what not, by way of promoting what they call very ridiculously *original research*, they should be told openly and constantly that no mere mechanic, no mere tradesman, however splendidly equipped, will ever be worth one straw in original research. Such a high calling, if it is not to be mere name, a mere imposture, requires as its first implement a trained intellect, taught to speculate, and to devise theories which may or may not be verified or illustrated by mechanical tools. The greatest discoverers in modern science were men with bad tools, and small equipment. The old Greeks had none at all, and yet how many of the world's mysteries did they approach and solve, merely by the force of pure and sound speculation! When we hear little modern men of science wondering how the Greeks could have got so far without modern instruments, we feel rather inclined to tell them we wonder the moderns have done so much with the help of these, for in ab-

stract thinking lies the real basis of every great discovery,

So far, the course of Greek philosophy has led us to the side of science, to the constitution of the world, to the immensity of space, to the physical construction of animal and vegetable life, to the problem of the duration of the universe, to the dreams about its origin. Regarding all this as *natural philosophy* (to use an obsolete but convenient expression), there remains another orb of Greek speculation which took rise with Socrates, passed on through Plato and Aristotle to the Stoic and Epicurean schools, and even illumined with its setting rays the old world passing into the night of the Dark Ages. Two things, says the philosopher Kant, impress me always with their peerless majesty—the starry heaven above, and the Moral Law within. It is this latter aspect of human philosophy, bound up as it is on the one side with profound metaphysic, on the other with ordinary practical life, that I must now speak. But here, where the material is large, and our evidence very complete, it is not expedient that I should detain you at any length. It may be new to some of you that Parmenides or Leucippus have been the fathers of modern systems; but none of you will doubt

for a moment the colossal influence of Plato and Aristotle upon modern thought.

You must beware of exaggerating the revolution in philosophy produced by Socrates and the Sophists. It may indeed be true in their case that they despised scientific speculation, and did not care to make researches into the constitution of the universe. Gorgias even erected into a theory his scepticism regarding the reality of our knowledge, and wrote a famous tract on the impossibility of knowing anything; and he was by no means the only nihilist in the course of Greek philosophy. But when we come to Plato, we find high physical speculation, we find high theories of the universe, we find all the learning of his predecessors woven into his system, or utilised by way of illustration. The ideas of the Pythagoreans in particular, influenced him constantly, and his advocacy of a training in geometry, which may, more than people think, have shaped the curriculum of modern public schools in Europe, is Pythagorean in spirit.

But in spite of this strong recommendation, it does not appear that Plato himself made any advances in that science. His aim was for the moral reform of the individual, and with him of society, by metaphysical and ethical training. He had

a higher opinion of the value of education than even the modern democrat, or English Radical, who imagines that by infusing knowledge into the masses, you can make them equal to the classes in refinement and in the amenities of life. But Plato's education was intended strictly for the ruling minority; he did not think the artisan or the labourer fit for this high privilege, and in all his ideal schemes, he set up either the exceptional man as a monarch (in the *Politicus*), a small oligarchy of guardians (in the *Republic*), or a fixed code of strict *Laws*, with severe penalties for any violation or even questioning of them—all clearly aristocratic forces,—as the safeguards of society. And in spite of all these ethical safeguards, he did not believe that any state, even if ideally constructed, would last for ever, but that it must live through a youth and a maturity and ultimately reach the decrepitude of age.

I will not revert to the political speculations of Plato, which belong to another part of my subject. My present concern is with his theology and his metaphysic. Is it any wonder that the early Christian thinkers, such as Saint Augustine, delighted in him and called him the Attic Moses? In his *Republic* he goes so far as to propose for his ideal state the expulsion of Homer and the

other Epic poets, and the establishment of a loftier creed, as necessary for pure and sound morals. The true deity must be one, and the author of all good. He must be free from all disturbance of passion or caprice, without love or jealousy, without pride or interest. Any defects there may be in the world are due, not to his want of benevolence, but to his want of omnipotence in controlling the necessities of things, or perhaps rather because no being, omnipotent or not, can possibly be conceived as reconciling absolute contradictories.

It may, for example, be better and nobler for the creation that beings should exist which have a free will of their own and which are not like machines controlled by invincible necessity. But if they have indeed free will, how is it possible they should not go wrong, and cause evil in the world as the outcome of their liberty? Yet if this be the cause of evil in the world, it implies a higher and better state than one of perfect order, with the ideas of virtue and merit expunged from existence.

Plato goes further than any but the highest Christian theologians when he declares the Moral Law to be eternal and immutable, and to be binding even on the Author of the universe. In other

words, the great mediæval controversy,—whether God does a thing because it is right, or whether a thing must be right because God does it,—this controversy is solved in the sense of what the Cambridge Platonists have called Immutable Morality. If such be the obligation under which even the Deity acts, it is an obvious corollary that nothing in the conduct of men is comparable to justice, nothing in dignity equal to the obeying of the Moral Law, without any regard of consequences. Nay more, to be punished for wrong-doing is far happier and better than to escape the consequences, and so to miss the great lesson that crime brings with it misery as a just consequence. Accordingly, a clear knowledge of moral principles is of the first moment to all men, and in Plato's day it was often a more difficult problem to choose the right course, than to follow it when discovered. This is the meaning of those many researches into the proper connotation of terms expressing moral ideas. What is *justice*, what is *temperance*, what is *chastity*, what is *holiness*? On all these, there was little difficulty in showing by discussion that the popular notions were vague, and often self-contradictory. The first step to a purer life was to understand its conditions, to bring the intellect, as well as the will, to bear

upon the conduct of men. Hence a man who felt no difficulty in doing his duty, when he once saw it plainly before him, might well say with Socrates and with Plato, that virtue was knowledge, that right living was a science, and that therefore a high education was the necessary condition of a noble character.

This attitude is foreign to the morals of Christianity, which accepts the child and the ignorant as better fitted for salvation than the wise and prudent. But such a theory, like that of a primitive Church where the members had all things in common, may be very practical at the opening of a revolution, yet may afterwards be found impracticable. It was not merely owing to its supposed corruption and decadence that the Mediæval Church came to ignore that poverty and equality of all Christians which we find at Jerusalem in the Acts of the Apostles. There is an aristocracy among men which no system of religion, of morals, of politics can ignore without disastrous consequences, and that is the aristocracy of intellect. This was the lesson which Plato taught in every page, and this it was which made him speculate upon the nature of the soul, and its relation to the Author of the universe, and to the knowledge of

things higher and deeper than mere ordinary experience.

It was only gradually that he arrived at his conviction of the immortality, or rather of the eternity of the soul; probably it was suggested to him by the mystics and theologians among the Greeks. But in his dialogue known as the *Phædo*, he has discussed this now accepted belief with all its difficulties. In the person of Socrates, he has courted all the objections, and has endeavoured to show on metaphysical principles that the soul, being a perfectly simple active principle, distinct from, and superior to, the body, will not pass away with the death of its tabernacle but will exist hereafter, as it has existed, from eternity to eternity. The late Erwin Rohde, a critic not at all favourable to revealed religion, says, I think with great truth, that "no human teacher has ever done so much as Plato to extend this belief," which has produced not only the noblest spiritual life, but also the noblest poetry. You know it in your English poets, best of all perhaps in the sober Wordsworth—

> Our birth is but a sleep and a forgetting;
> The Soul that rises with us, our life's Star,
> Hath had elsewhere its setting,
> And cometh from afar.

And again:

Hence in a season of calm weather
Though inland far we be,
Our Souls have sight of that immortal sea
Which brought us hither,
Can in a moment travel thither,
And hear the children sporting on the shore,
And hear the mighty waves, rolling for evermore.

Need I pass on to Aristotle, and show in detail how his philosophy so dominated mediæval learning that it was adopted and protected by the Church, and that it became one of the efforts of the spirit of reform in logic and in psychology to break the shackles which this great thinker had, as the modern spirits often complained, forged to keep the human intellect from its advance? Need I tell you that this was owing to a travesty of the great man, learned not from his own pregnant words but through translations and commentaries?

I will conclude with a reference to the two great systems that dominated the Roman world after Plato and Aristotle had turned philosophy into an ethical channel—I mean those of the Stoics and of the Epicureans, who mapped out human character with a clearness that makes them our teachers to the present day. Not that

they avoided speculating on the nature of the universe. The physics of Epicurus, borrowed from Democritus, are among the most difficult of studies, and the Stoics embraced in their view as the motive of action of their wise man all the harmony of the universe. These speculations may now be antiquated, but as the teachers of ethical types, as the expounders of what the highest human wisdom finds in its search for happiness, these two schools have fixed the types of civilised men for all time. Every man in this audience is born either a Stoic or an Epicurean, or what is perhaps far more common, alternates from one to the other according to circumstances. In its simplest form the great question is: Are we to live for duty, or live for pleasure—not of course mere vulgar pleasure of the senses, but that refined balance of intellectual and moral pleasure which you will find best explained in my old friend Walter Pater's *Marius the Epicurean;* or else are we to seek for our standard outside ourselves, in the laws which the Moral Governor of the world has established for its welfare, and co-operate with Him in the promotion of His great ends? Such is the ideal wise man of the Stoics, who despised all earthly delights, all physical pleasures, for the sake of the

great law of duty, and the great mission of living for some nobler purpose than mere animal or social comforts. We have its best expression in the peroration of Cicero's account of the system[1]; or if you will have it in a more familiar shape, in the loud clarion of Saint Paul: "As deceivers, and yet true; as unknown, and yet well known; as dying, and behold, we live; as sorrowful, yet alway rejoicing; as poor, yet making many rich; as having nothing, yet possessing all things."[2] For he too was bred a Stoic, and was not afraid in his addresses to cultivated men of his day to preach Stoic theology, akin to Pantheism.

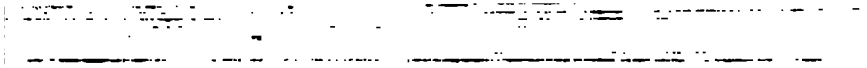
If the time should ever come when men will no longer be led by revelation, when they will reject miracle and prophecy, and determine to be led by the mere light of reason (men have often anticipated such a future, regardless of the fact that hitherto religious scepticism has always ended in a recoil from this liberty, and a revival of positive and even superstitious creeds) —if, I say, such an age should ever lay aside the Christian faith, there will still remain the ethical types which Zeno and Epicurus have crystallised in their systems—there will always remain the

[1] *De Finibus*, lib. iii., sub fin.
[2] 2 Cor. vi., 9, 10.

man of duty and the man of pleasure, the man who lives for others and he who lives for himself, in terms of modern philosophic jargon, the Altruist and the Egoist, the Spiritualist and the Materialist.

And here I break off my unfinished task, unfinished indeed as it must be, for beyond the many things that I have omitted though I knew them, there are many more omitted because I knew them not, because I have not fathomed the unfathomable depth and the myriad variety of that genius which is living, and suggesting, and working all through the ideal aspects of our modern life. There are probably few men who have lived longer and more intimately with the old Greeks, in more phases of their life, ever probing and seeking for deeper and better knowledge of their vast legacy to mankind, of which the rodent tooth of time, the sacrilegious hands of men, have lost or destroyed so much. The farther I seek, the wider the vistas I see opening before me. So now, when my part in the race is nearly run, there remains to me no higher earthly satisfaction than this, that I have carried the torch of Greek fire alight through a long life—no higher earthly hope than this,

that I may pass that torch to others, who in their turn may keep it aflame with greater brilliancy perhaps, but not with more earnest devotion, "in the Parliament of men, the Federation of the world."



# INDEX

## A


Achæan League, organisation and dissolution, 203, 204
*Acontius and Cydippe*, love story of a modern type, 94
Actium, battle, 71
*Æneid* of Virgil, *see* Virgil
Æolic school, characteristic, 53
Æschylus, source of his tragedy, 36, 37; one of the "three tragic poets," 47; Milton's view of, 47; characters of his plays, 48; judge of tragedy, 73; music of, 136
*Agamemnon:* great play, 27; opening of, 48; "vulgar and trivial persons," 48; contributes to Byron, 55; Browning's version, 57; often translated into English, 58
*Prometheus Vinctus:* model for *Paradise Lost*, 47
Æsculapius, shrine of, 176
*Agamemnon, see* Æschylus
Agatharchus, discovers principles of perspective, 130
Alcæus, poet, 37
*Alexander, Life of*, 97
Alexandria, library, collecting of, gives impetus to literary criticism, 91
Alexandrian school, development of mechanics, 162; invention of the *sakia*, 165
*Alkestis*, see Euripides
Alma-Tadema, Sir Edward, influenced by Greek art, 131, 132
Amyot, imitated Greek novel, 96
Anatomy, how studied by Greeks, 148
Anaxagoras, principal feature of his system, 229; on original particles, 229; Aristotle on, 229; his famous *Nous*, 230, 231
Anaximander, makes advances in astronomy, 216, 217; geological observations of, 218
Anaximenes, idea of the fundamental element of the world, 216, 217; theory of eclipses, 217
Antiphon, treatises of, 82
*Antony and Cleopatra, see* Shakespeare
*Aphrodite* of Melos, mentioned, 118
Apollonius of Perga, treatment of conic sections, 161, 167
Apollonius Rhodius, delights in nature, 59
*Argonautics:* great epic, 41; model for Milton, 43; and Goethe's *Faust*, 44
Arabic numerals, 157
Archilochus, poet, 37
Archimedes, triumphs of, in mechanics, 162, 167
Architecture, earliest form of house, 99; houses of the dead, 100–102, 110, 111; square house, 102; evolution of classical, 103; building materials, 103; Doric, 104, temples, 105, 110;

Architecture—*Continued*
distinction between house and temple, 106, 107; perfection of religious, 106, 107; arch not used by Greeks, 107, 108; Greek and Roman, compared, 108; purpose in parts of a building, 109; origin of arch, 109; Roman use of arch, 110; ornamentation of, by sculpture, 120
Archytas, 167
*Areopagitica*, *see* Milton
*Argonautics*, *see* Apollonius Rhodius
Argos, slaves in, 188
Aristides, studied oratory, 70
Aristocracies, in classical and mediæval times, 184
Aristophanes, as critic, 92; ridicules Asklepiads, 176
Aristophanes, diction and metre, 37; greatest master of Greek comedy, 60, 61; Frere's translation, 61, 64; Rogers's translation, 61; influence and legacy, 61
*Birds and Frogs:* 27
Aristotle, almost canonised, 19; criticism of *Iphigenia in Aulis*, 62, 72; criticism of Medea, 62; distinction between prose and poetry, 62, 63; on Herodotus, 62, 63, 73; on dramatic poetry and history, 72, 74; and Herodotus, on style and subject of history, 74; treatise on Language, 149; treatise on Reasoning, 150; arithmetical proof of theorem in geometry, 156; on geometry, 159; "master of those that knew," 167; brought up in Socratic method, 167; style of writing, 167, 168; system of collaboration, 168, 171; collaborators, 169; does no original work in mathematics, 169; competence in mathematics, 170; sciences promoted by, 171; views on slavery, 189; views on craftsmen, 189; essential in his ideal of a state, 206; objection to atomic theory, 233; influence on modern thought, 237; his philosophy and the Church, 242
*Constitution of Athens:* 169
*Poetic:* on tragic poetry, 61; on dramatic poetry and history, 72
Aristoxenus, collaborator with Aristotle, 169
Arithmetic, starting-point of mathematics, 153; importance of, to Pythagoras, 153; numbers the essence of the universe, 153, 154; Greek meaning of, 154; Pythagorean speculations on natural series of units, 155; specimens of treatment by Pythagoras, 156; importance of numbers ten and twelve, 156; Greek notation, 157; Euclid's works on, 161; books on history of, 170
Arnold, Matthew, compares Milton's style with Virgil's, 46; writes plays after Greek models, 58
*Merope:* 58
Art, earliest Greek, 12; proper province of, 33, 34; use of the term, 98
Artificiality of Greek poetry, defined, 33, 34
Asklepiads, method of, 176
Assemblies, in Greek democracies, 183
Astronomy, books on history of, 170
*Atalanta*, *see* Swinburne

Athens, debts in, 186; leadership, 201; degeneration of spiritual life in, 210
Atomic theory, developed by Leucippus and Democritus, 231, 232; results of, 233; Aristotle's objections to, 233
Atomists, doctrine of, 218, 219
Atreus, tomb of, 102, 111
Attic citizens, character, 208
Attic Code of laws, 190, 261
Attic life, portrayed by Menander, 208, 209

B

Bacchylides, comparison of Gray with, 54
Beehive huts, earliest form of house, 99; extant examples, 99, 100; not easily defended, 99; once a general type, 100; houses of the dead, 100–102; Treasury of Athens, 101; development of, 102
Biography, Plutarch, model, 80
*Birds and Frogs*, of Aristophanes, 27
Blow's anthem, "I beheld and lo! a great multitude," 126
Boccaccio, and Greek novels, 95
Botany, promoted by Aristotle, 171
Botticelli, Greek influence on, 131
Brougham, Lord, on Demosthenes, 84
Browning, Robert, his version of *Agamemnon*, 57; version of Euripides, 57, 58, 64
Brydges, Sir Egerton, on choruses in *Samson Agonistes*, 50
Buckle's *Civilisation*, famous opening, 5
Burke, Edmund, style influenced by Isocrates, 90; translation of the *Tract on the Sublime*, 92
Burlington Art Club of London, collection of Greek fragments, 21
Byron, Lord, leader of Romantic school, 55; knowledge of Greek poetry, 55; borrows from Æschylus, 55; interested in Greek life and Greece, 56; interests Romanticists in Greece, 56
Byzantine architecture, 18

C

Calverley's *Theocritus*, 64
Cambridge Platonists, 240
Carrey, Jacques, drawings of Parthenon, 52
Cathedral of Henry the Lion at Brunswick, 119
Chalmers, Thomas, Scotch orator, style, 90
Chapman, translation of the Iliad, 45, 51
*Charioteer* of Delphi, 117
Choral hymns, Doric, 41
Cicero on Pindar, 50; on history, 80; style modelled on that of Isocrates, 88, 90
*De Finibus:* 245
City states, in Greece, 183; combinations and alliances, 200
Colours, use, 118
Comedy, Greek, influence, 60, 61
Composition in sculpture, 120, 122
*Comus, see* Milton
Constantinople, adheres to Hellenic traditions, 182
*Constitution of Athens*, 169
Contracts, civil, 194

Conversation, perfection of Greek style, 90, 91; Plato's *Dialogues*, 91
Corcyrean massacre, Thucydides on, 77
Cornford, Mr., *Thucydides Mythistoricus*, referred to, 77
Criticism, literary, beginnings, 91; models of, 92; *Tract on the Sublime*, 92
Cyclic poets, 42
*Cyrus*, of Xenophon, 94

D

Dante, gloomy splendour, 19
*Inferno:* 27
*Daphnis and Chloe*, author unknown, 96; best specimen of Greek novel, 96
Dark Ages, conditions in, 181; causes of retrogression, 282
Darwin, Charles, on sense of colour, 128
Death penalty, 192
Debts, reduction of by Solon, 186
*Decline and Fall of the Roman Empire*, *see* Gibbon
Decoration, painting a branch of, 132, 133; household, 145, 146
*De Corona*, *see* Demosthenes
*De Finibus* of Cicero, 245
*De Jure Pacis et Belli*, by Hugo Grotius, 198
Delos, discoveries at, 145
Delphi, treasury of Siphnos, 122; hymn discovered at, 134
Democritus, development of Atomic theory, 231, 232; consequences to which his theory led him, 233
Demosthenes, combined orator and politician, 70; character of orations, 83, 84
*De Corona:* greatest Greek oration, 83; style, 84
Derby, Lord, translator, 57
Descartes, teachings of, 216, 224; on colour, 216; on extension and thought, 224
Diagoras of Melos, atheist, 215
Dialects, Homeric, 33, 40, 41; main cause of their use, 40
*Dialogues* of Plato, *see* Plato
Diatonic scale, basis of Greek music as well as of modern, 135, 142–144
Didot, *Epistolographi Graeci*, 92
Dikæarchus, collaborator with Aristotle, 169
Dion Chrysostom, rhetor and sophist, 93
Dionysius of Halicarnassus, essays of, 92
Dionysius of Syracuse, tyrant, 205
Diophantus, work in arithmetic and algebra, 161, 162, 167
Donatello's problem, 113
Dorians, literary prose had its origin among them, 67, 68
Doric choral hymns, 41
Doric pillar, 104
Doric temple, 104
Dörpfeld, Dr., Greek critic, 27; discoveries at Tiryns, 105
Drama, Greek, beginnings, 36; influence, 46 *ff*, 57, 58
Dryden, John, translation of Virgil, 53; model for Gray, 54
*Ode to St. Cecilia:* shows Greek influence, 55

E

*Eclogues* of Virgil, 24
Education, Greek: ethical inquiry, 215; subjects of thought, 215; relation of

Education—*Continued*
music to, 136, 137, 144; relation of mathematics and science to philosophy, 179; higher: and Greek studies, 20; relation of mathematics and philosophy, 179; essential element, 214; best exponent, 215; relation to character, 241
Egypt, greatness, 5; influence on Greece, 11
Egyptian art, influence on Greek art, 145
Elea, school of, founder, 221
Eleusinian Mysteries, 115
Empedocles, wrote in verse, 39; principal feature of his system, 229; postulated principles of Love and Hate, 230, 231
*Entretiens sur l'architecture*, *see* Viollet-le-Duc
Epic poetry, Greek, 41; modern, 42; influence, 42
Epicteta, will of, 196
Epicureans, on music and morals, 138; and Stoics, 244
Epicurus, system of, 245
Epidauros, place of pilgrimage, 176
*Epistolographi Graeci*, 92
*Epoch of Irish History*, *see* Mahaffy, J. P.
*Erechtheus* of Swinburne, 58
Etruscans, and the arch, 105; culture of, 110
Euclid, how attained perfection, 158, 159; on optics, 166; father of geometry, 167; founds Peripatetic Mathematics, 170
*Elements:* summary of all principles discovered previously, 158; three kinds of data, 159; careful definitions, 159; misfortune of, 160; thirteen books, 160, 161
Eudemus the Rhodian, collaborator with Aristotle, 169; his history of sciences, 170
Eudoxus, astronomer, 167
Euripides, Milton's view of, 47; introduces "vulgar and trivial persons" into his plays, 48; influence on development of *Samson Agonistes*, 49; choruses of, 51; Browning's version of his plays, 57–58, 64; and Tennyson, 60; Medea, 62
*Alkestis:* Browning's version of, 57
*Iphigenia in Aulis:* type of heroine, 62; Aristotle's criticism of, 62, 72
*Mad Herakles:* Browning's version of, 57
*Everyman*, represents horrors of Middle Ages, 115
*Excursion*, *see* Wordsworth

F

*Fall of Miletus*, *see* Phrynichus
*Faust*, *see* Goethe
Federation, early example, 203
Fick, Augustus, on place-names, 7
Frere's translation of Aristophanes, 61, 64

G

Geometry, Euclid's, 158–161, 167; books on history of, 170
*Georgics* of Virgil, 24
Germany, reduction of many states into one empire, 204
Gibbon, Edward, *Decline and Fall of the Roman Empire*, conception which moved author to write, 79

Gladstone, William E., style of eloquence, 89
Goethe, *Faust:* a world epic, 27; borrowings from *Argonautics*, 44
Golden Age of Greek Literature, 91
Gray, Thomas, Greek temper, 54; compared with Simonides and Bacchylides, 54; swept away by Romantic wave, 54; prefers Celtic and national subjects, 54; Greek style, 54; grasps splendour of Pindar, 54; shows influence of Greek poetry, 54, 55; love of nature, 59
Greece, advantageous position of, 11; economic conditions in time of Polybius, 206; modern character of civilisation, 207
Greek culture, vital essence, 182; Latin, compared with, 182
Greek learning, revival of, 17–20
Greek scholars in Western Europe, 17, 18
Greek society, conditions, 213, 214
Greek studies, place in higher education, 20–22; and Latin, 22, 23; source of culture, 23; comparative value of originals and translations, 23–26
Greeks, the, explanations of pre-eminence insufficient, 3–7; pre-eminence unexplained, 7–9; originality, 9; genius of race analogous to genius of individual, 9; powers of assimilation and reproduction, 10–12; important position between two civilisations, 11; effect of diverse influences, 11, 12; receptive, but not absorbed, 13, 14; persistence of characteristics, 15; accomplishments in world's history, 16–18; influence of, 53; not wanting in love for nature, 59; why no means of expressing Christian spirit, 113; and Christianity, 113; race of varied experience, 116; sense of fitness in sculpture, 116; power of logic upon their minds, 152; triumphs gained by hard thinking, 179; traders, 187; attitude toward monarchy, 205; furnish lessons in failures as well as in achievements, 205, 206; middle classes most important, 206; adopt limitation of family, 207
Grote, George, historian, 56; not interested in travelling in Greece, 56; on Attic citizens, 208
Grotius, Hugo, *De Jure Pacis et Belli*, 198
*Guesses at Truth*, *see* Hare

H

*Hamlet* of Shakespeare, 48
Hare, *Guesses at Truth*, quoted, 52
Hecatæus, historian, 71
Hegemony of Greece, what it was, 201; leaders, 201
Hellenic race, *see* Greeks
Heracleitus of Ephesus, early writer of prose, 67; his fundamental element of the world, 219; on qualities of matter, 220, 221
Herculaneum, 145
*Hermes* of Praxiteles, 106
*Hero and Leander*, 96
Herodotus, Father of History, world model of art of history, 71–75; subject,

Herodotus—*Continued*
71, 74, 78; essence of history as an art, 73; agrees with Aristotle as to style and subject of history, 74; style, 74, 75; so-called inventions of, 76; vindicated, 76; compared with Thucydides, 76, 78; on Cyrene, 77; quoted, 116
Heron, development of mechanics and hydrostatics, 147, 162, 167; ingenious inventions of, 162-164, 165
Herondas, *Mimes*, inferior poetry, 39
Hiero of Xenophon, 116
Hipparchus, astronomer, 167
Hippocrates of Kos, Father of Rational Medicine, 67, 171; founds school of medicine, 171; style of writing, 172; works out a system of treatment, 172; *Aphorisms* quoted, 172; John Stearne on works of, 174; mental attitude of, 174; ignores supernatural causes of diseases and cures, 175; quoted, 175; combats superstition, 176; principles, 177; oath of practitioners, 178
Hipponax, 41
History, early annalists, 70; Herodotus and Thucydides, 71; models of the art and science of history, 71; Aristotle's view of, 72, 74; Herodotus on history as art, 73, 74; views of Herodotus and Aristotle compared, 74; simplicity, 75; Herodotus vindicated, 76; Thucydides compared with Herodotus, 76; views of Thucydides, 77; style of Thucydides, 78, 79; human history as a great drama, 79; characteristics that will make it last, 80
*History of Greek Literature*, *see* Mahaffy, J. P.
Homer, understood by all generations, 14; his influence through Pope, 53
Homeric dialect, 33, 40, 41
Homeric poems, artificiality, 33; beacon light, 37; translations, 45, 51, 52
Horace, Greek lyrics, 4; version of Alcæus, Sappho, and Pindar, 53
Hydrostatics, development by Heron, 147, 162
Hylozoists, study of, basis of higher work in science, 234

## I

*Iliad*, translated into many languages, 26; a world epic, 27, 41; imitated, 41; model for all time, 42; and Milton's *Paradise Lost*, 42, 43; Chapman's translation, 45, 51; Pope's translation, 51, 52, 53; expunged texts, 183
Immigration, no inducements for, in Greece, 207
India, civilisation, 6
*Inferno* of Dante, 27
Interest, rate of, in Greece, 187
Intermarriage, 198
International relations of Greek states, 198; war, 199-200; political combinations or alliances, 200 *ff*
Invalides in Paris, 111
Ionia, subjugation of, checks development of Greek prose, 67
Ionic school, subjects of speculation, 216; study of, important, 234

*Iphigenia in Aulis*, *see* Euripides
Ireland, landed gentry, 212
Isæus, treatises of, 82; speeches, 194–196
Isocrates, father of political essay, 86; originates political pamphlets, 87; devises and perfects laws of prose composition, 88; teaches his style, 88

J

Jonson, Ben, knowledge of Greek, 45

K

Keats, John, Greek spirit, 46; not familiar with Greek originals, 46, 56
*Ode on a Greek Vase:* 132
Keltic influences on Greece, 12
Kos, school of, 176, 178

L

Land legislation in Greece compared with that in Ireland and Scotland, 187
Language, perfected use of, by Greeks, 148; analysis of, 149; Greek: Non-Aryan roots, 7; permanence, 14
*Laocoon*, 116
Laplace's theory, 220
Latin, place in higher education, 22, 23; medium of Greek influence, 45
Latin culture, why not permanent, 182; compared with Greek, 182
Latin races, 3
*Latin Vulgate*, the, St. Jerome compares it with Greek and Hebrew originals, 19
Law, Greek, Attic Code model for Romans and other nations, 190; criminal, 191 *ff;* compared with that of Modern Europe, 192; safety of citizens, 192; death penalty, 192, 193; civil, 193-198; contracts, 194; testaments or wills, 194–197; international, 198 *ff*
Leighton, Lord, influenced by Greek art, 131, 132
Lepanto, battle, 72
Letter-writing, Greek letters not remarkable, 93; Cicero's formulæ, 93; exceptions, 93
Leucippus, development of Atomic theory, 231; father of modern systems, 236
Literary criticism, beginnings, 91; models, 92; *Tract on the Sublime*, 92
Loans, 194
Local government, not representative, but popular, 189, 190
Locke, teachings of, 216
Logic, approached by Greeks through analysis of language, 148; beginnings of logical studies, 149; treatises of Aristotle on theory of Reasoning, 149, 150; importance of common logic, 150; small attention paid to, in American education, 150, 152; English and European training in, 151; power of, on Greek minds, 151, 152; and Greek mathematics, 153
Lourdes, place of pilgrimage, 177
Lucretius, claims, 4
Lyric poetry, beginnings, 37; influence, 53–57, 59, 60
Lysias, presentation of argument in character, 83

M

*Macbeth*, of Shakespeare, 48
Macedonian power, 205, 211
Machinery, inventions of Heron, 162–164; moving force of automatic *sakia*, 165
*Mad Herakles*, *see* Euripides
Magee, Archbishop, style of eloquence, 89; modelled after Chalmers, 90; style based upon principles of Isocrates, 90
Mahaffy, J. P., *Epoch of Irish History:* referred to, 173
*History of Greek Literature:* on poetry, 31; on obscurity of Thucydides, 79; on Isocrates and Demosthenes, 82; on conversation, 91
*Rambles and Studies in Greece:* on persistence of characteristics, 15, 16
*Social Life in Greece:* main thesis, 15
*Marius the Epicurean*, by Walter Pater, 244
Mathematics, school of Pythagoras, 153, 155, 156, 161, 167; theory of Descartes, 154; arithmetic, 153, 154; geometry, 158; mathematical physics, 162; library of Greek, 166; pure, 166, 169; Peripatetic, 170
Mausollus of Halicarnassus, tyrant, 205
Mechanics, development by Archimedes, Heron, and Alexandrian school, 162
Mediæval schools, training in logic, 150, 151
Medicine, formulated by Greeks, 147; school of Hippocrates, 171 *ff*; mediæval, 174, 175; and superstition, 174, 175; resurrection of, 176
Menander, character of plays, 34, 94; translations by Plautus and Terence, 61, 208, 209; influence, 61; portrays Attic society, 208-210; fragments of plays discovered in Egypt, 209
Meredith, George, characteristic of his work, 79
*Merope*, of Matthew Arnold, 58
Middle Ages, a period of gloom, 114, 115; conditions in, 181; causes of retrogression in, 182
Miletus, fall of, checks the development of Greek prose, 67; temple, statues at entrance, 120
Milton, John, poetic vision disturbed by political controversies, 42; influenced by Greek epic, 42; influenced by Greek drama, 46; poetic style and metre, 46; Matthew Arnold on, 46; defence of dramatic poetry, 47; on Shakespeare and Greek masters, 47; on Greek tragedy, 47–49; choruses and lyrical monodies, 50; inspired by Isocrates, 88, 90
*Areopagitica:* style, 88
*Comus:* lyric sweetness, 51
*Paradise Lost:* best modern epic, 42; compared with the *Iliad*, 43; divine and human in, 43; redundancy of similes, 43; and *Argonautics*, 43; and *Prometheus Vinctus*, 47
*Samson Agonistes:* Greek form, 47, 49, 50; borrowings from *Œdipus* and *Prometheus*, 49; development influenced by Euripides, 49; Greek spirit, 50;

*Samson Agonistes—Cont.*
lyrics and choral odes, 50, 51; Sir Egerton Brydges on, 50
*Mimes, see* Herondas
Minyæ, Tomb of the, 101, 108, 111
Motion and matter, 234
Mummius, cause of conquest of, 211
Music, first beginnings, 99, 133 *ff;* notation related to meaning, 125; existing specimens of Greek, fragmentary, 134; comparison of Greek with Japanese, 135; Greek scales, 135, 142–144; and Greek poetry, 136; relation to education, 136, 137, 144; effect upon morals, 137-140, 144; Greek music source of modern, 141; simplicity, 141; Greek works on, 141; Plato on instrumental and vocal, 141; extant Greek tracts on, 142; Hungarian, 142; problems of Greek, 142; scientific basis of harmony discovered by Pythagoreans, 143; Pythagorean theory, 143; Aristotle on melody, 144; summary of Greek music, 144

N

Naples, 145
Natural history, collection of facts by Greeks 147
Natural philosophy, 236
*Nike* of Samothrace, 117
Novel, development among Greeks, 93, 94; and Menander's plays, 94; main topic imported from East, 94

O

*Ode on a Greek Vase*, by Keats, 132
*Ode to St. Cecilia, see* Dryden
*Odyssey*, world epic, 27, 41; imitated, 41; unequalled, 42
*Œdipus, see* Sophocles
Optics, Euclid's work on, 166
Oratory, school of pleaders, 68; treatment of subject, 69; subject of great importance, 69, 70; eloquence of debate and eloquence of display, 68, 81; Greeks adverse to extemporaneous speaking, 81; art of persuasion, 82; arguments and manner of presenting, 82, 83; legal rhetoric, 83; speeches of Demosthenes, 83; *De Corona*, 83; Greek oratory of debate still the model of modern world, 85
Orchomenos, 101
Ornament, earlier in development than architecture, 99; in pre-historic ages, 99; in Doric temple, 104

P

Painting, 125 *ff;* examples of Greek, 126, 127; qualities requisite for success, 128; Greek sense of form, 128; Greek sense of colour, 128-130; landscape little developed among Greeks, 130, 131; portraits, 131; mythical subjects, 131; and sculpture, 131; indirect influence on modern painting, 131, 132; Greek vases, 132; branch of decoration, 132, 133

Pantheism, doctrine of, 222-224; positive side of, 223; arguments for, 224; how regarded by Greek public, 225; and Wordsworth, Shelley, Tennyson, 228, 229
Pantheists, Greek, character of, 222; legacy to mankind, 228; effect on modern poetry, 228
Pantheon, 111
Pappus, work in geometry, 161
Papyrus I. of Turin, 197
*Paradise Lost*, *see* Milton
Parmenides, 236; gives positive side of doctrine of pantheism, 223
Parthenon, unexcelled, 27; J. Carrey's drawings of, 52; frieze, 113, 122; horses of, 121; ornamentation, 130
Pastoral poetry developed by Theocritus, 35
Pater, Walter, *Marius the Epicurean*, 244
Paul, Saint, on Stoicism, 245
Pausanias, and temple of Hera, 105; and Tomb of the Minyæ, 108
Peisias, the Lycian, will of, 196
Peloponnesus, cities of, 201
Penrose, Mr., Greek critic, 27
Pericles studied oratory, 70
Peripatetic Mathematics, 170
*Persians* of Timotheus, *see* Timotheus
Peyron, Amédée, 197
*Phædo*, of Plato, 242
Phelps, W. L., on Gray, 54
Pherecydes of Syros, predecessor of Heracleitus, 67
Phidias, and the *Laocoon*, 116; his ornamentation of the Parthenon, 121, 122; his procession of figures, 122, 123
Philodemus, *Tract on Music*, on effect of music on morals, 138
Philosophy, relation to science, 169, 236; secular and free, 215, 216
Phœnicia, influence on Greece, 11, 12
Phœnician alphabet, 12
Phormio, 71
Phrynichus, *Fall of Miletus:* displeasing to Attic audience, 73, 115
Physical geography, 169
Physics, mathematical, 162; developed by Archimedes, 162; development of hydrostatics and mechanics by Heron, 162, 167
Pindar, Cicero on, 50; Horace's appreciation, 53
Pindar, *Odes*, 27
Place-names, Greek, 7
Plato, influence on Wordsworth, 57; as critic, 92; on influence of music, 139, 141; philosophy of, 237; influence on modern thought, 237; views of education, 237, 238; theology, 238 *ff.*; on moral law, 239, 240; on aristocracy of intellect, 241; on immortality of soul, 242
*Dialogues:* model of conversation, 91; logical studies in, 149; character, 214; subjects, 215
*Phaedo:* 242
*Politicus:* 238
*Republic:* picture of gloom, 116; ideal for safeguard of society in, 238
*Sophist:* 152
Platonism, 228
Plautus, translation of Menander, 61, 209
Plutarch, model for modern biographers, 80

Plutarch—*Continued*
*Lives;* North's translation furnished Shakespeare with subjects, 45, 80; influence on French Revolution, 46
*Poetic, see* Aristotle
Poetry, Greek: 31 *ff;* carefully studied product, 32, 37; dialects, 33, 40; development, 34, 35; pastoral, 35; dramatic, 36; lyric, 37; form and spirit, 38; diction and metre, 38; best studied in the original, 38, 64; examples of inferior, 38, 39; associated with other arts, 39; dignity and brevity, 40; and modern poetry, 41 *ff;* great epics, 41; influence, 42 *ff;* how far reduced to theory, 61–63; translations, 45, 51, 52, 64; indirect influence through Latin, 45; and music, 136
Politics, causes of development, 182, 183
*Politicus*, of Plato, 238
Polybius, artistic conception of history, 79; and Achæan League, 203; on limitation of family, 207; on ruin of Greece, 211
Pompeii, 145
Pope, Alexander, translation of *Iliad*, 51, 52, 53
Praxiteles unexcelled, 112
Praxiteles, *Hermes*, 33
*Prometheus Vinctus, see* Æschylus
Prose, Greek, knowledge of early development of, 65; late origin, 66; poetry more popular than, 66; early attempt at, by Heracleitus, 67; Hippocrates, 67; beginnings among Dorians, 68; prose adapted for a listening public, 86; political essay, 86; laws of composition devised by Isocrates, 88; conversation easy, 90; letter-writing, 92; the novel, 93; books of travel, 97
Puteoli, gateway into Italy, 145
Pythagoras, effect of influence, 221; contemporaries and successors, 221
Pythagorean school, importance of arithmetic, 153; theory of Descartes, 154; speculations on series of units, 155; specimens of treatment in arithmetic, 156; results of researches, 156; importance of numbers ten and twelve, 156; discoverers and teachers of science, 166, 167
Pythagoreans, discover science of harmony, 143; famous theory, 143

R

Racine and his plays, 48
*Rambles and Studies in Greece, see* J. P. Mahaffy
Renaissance (Renascence), 4; artists of, 131
Rénan, Ernest, simplicity of style, 75
Renascence, 4
Representation, local, 189
*Republic, see* Plato
Research, original, requisite for, 235
Rogers's translation of Aristophanes, 61
Roman life and culture, 18, 19
Roman Republic, effect of growth, 211
Romanesque architecture, example of tawdriness, 109
Romans, medium through which Greek learning was spread in Western World,

Romans—*Continued*
3, 4, 18, 19, 85, 190, 195; compared with the Greeks, 182
Romantic school, 59
Rome, Greek ruins in time of Renaissance, 146
*Romeo and Juliet*, *see* Shakespeare
Royal College of Physicians, Ireland, 173
Ruskin, John, style, 89

S

St. Angelo, castle of, 111
St. Mark's at Venice, architecture of, 18, 109
*Sakia*, invention of, 165
*Samson Agonistes*, *see* Milton
Sappho, 37; Horace's version of, 53; love for nature, 59
Satyric drama, 48
Science, definition of term as used, 147; relation to philosophy, 168; abstract thinking necessary to experiment and discovery, 235
Sciences of observation, 147
*Scriptores Erotici Graeci*, 95
Sculpture, Greek: reasons for pre-eminence 112, 113; nude and draped figures, 112, 113; Donatello's problem, 113, 114; use of bronze and marble, 116, 118; development, 117, 118; decay, 117; never dissociated from painting, 118; coloured statues, 118, 119; principles of composition, 120; second favourite form of composition, 122; effect on Europe, 123
Shakespeare, indebted to Plutarch's *Lives*, 45; indirect knowledge of Greek poets, 46; Milton on, 47, 48; school of, defended 48
*Antony and Cleopatra:* source in Plutarch's *Lives*, 45
*Hamlet:* Voltaire's view of, 48
*Macbeth:* Voltaire's view of, 48
*Romeo and Juliet:* Greek origin, 95
Shakespeare, school of, and Greek masters, 48
Shelley, combines Greek culture with Romantic imagination, 56, and Pantheism, 228
Sicilian troubles, 186
Sidon, tomb of, 112
Silver Age of Greek Literature, 91
Simonides, Gray compared with, 54
Skellig Michael, beehive huts at, 99
Slavery, among Greeks, 188, 190; Aristotle on, 189
Smyly, Prof., *Essay;* on Greek notation in arithmetic, 158
*Social Life in Greece*, *see* J. P. Mahaffy
Socrates, prosecution of, 215; causes revolution in philosophy, 236, 237
Solon, use of verse, 39; modern, 66; reduces debts in Athens, 186
*Sophist*, of Plato, 152
Sophists, attitude toward scientific speculation, 237
Sophocles, Milton on, 47; choruses, 51; Whitelaw's version of, 64; music of, 136
*Œdipus:* and Milton's *Samson Agonistes*, 49
Sophron, poet, 39
Sovranties, pass into aristocracies, 184, 185; models

Sovranties—*Continued*
in constitutional government, 184-186
Sparta, slaves in, 188; power, 201
Spinoza, teachings of, 216; Pantheist, 224
Statuary, portrait, 120
Stearne, John, Founder of Royal College of Physicians, Ireland, 173; theorist and writer, 173; on works of Hippocrates, 173; and the Church, 176
Stoics, speculations, 244-246; and Epicureans, 244-246
Stylists, modern English, 89
Swanwick, Miss, translations, 57
Swinburne, Algernon, writer of plays after Greek models, 58
*Atalanta:* choruses, 40, 58
*Erechtheus:* 58
Syracuse, 68

T

Taylor, Jeremy, style influenced by Isocrates, 90
Temples, Greek: Doric ornament, 104; features, 105; at Tiryns, 105; Hera at Olympia, 105; distinction between dwellings and, 106; construction, 106; compared with houses, 107; proportions, 107; furnish models for all Europe, 110
Tennyson, influenced by Theocritus, 36, 59, 60; and Euripides, 60; and Pantheism, 228, 229
Terence, translation of Menander, 61, 209
Thales, his primitive element of the world, 216, 217; predicts an eclipse, 217
Themistocles, studied oratory, 70
Theocritus, Virgil's translations, 24; pastoral poet, 35; goes back to life of people, 35, 36; influence on Tennyson, 36, 59, 60; idealises the commonplace, 38; delights in nature, 59; best translation of, 64
*Idylls:* 96
Theognis, use of verse, 39
Theon of Smyrna, 167
Theophrastus, collaborator with Aristotle, 169
Thirlwall, history written without first-hand knowledge of Greece, 56
"Three tragic poets," the, 47, 49
Thucydides, has given to world model of the science of history, 71; subject, 71, 77, 78; compared with Herodotus, 76, 78; subtle artist, 76; style, 77; picture of politics in Greece, 77; artistic scheme, 78; diction, 78; obscurity, 78, 79; on war, 200
*Thucydides Mythistoricus*, *see* Cornford
Timotheus, *Persians:* inferior poetry, 38, 39, 63; Wilamowitz on, 39
Tiryns, remains of temples at, 105
Tombs, domed or circular buildings, 110; Pantheon, 110; Castle of St. Angelo, 111; Invalides in Paris, 111; Mausoleum of Queen Victoria, 111; Treasure House of Atreus, 111; Tomb of the Minyæ, 111; early, in Ireland, 111
*Tract on the Sublime*, translated by Burke, 92; point of view of, 92
Tragedy, Greek: material, 42; Milton's view of, 47, 48

Travels, not thoroughly Greek, 97
Treaties, between Greek city-states, 198
Trinity College, Dublin: some of the requisites for degree, 179
Turin, Academy of, *Transactions;* referred to, 197

U

Unions or leagues, question as to rights of contracting parties, 202, 203; European examples, 204

V

Vases, ornamentation of, 132
Venetian Republic, 184
Villari, Professor Pasquale, *Studies:* quoted, on problem of art in Renaissance, 113, 114
Viollet-le-Duc, *Entretiens sur l' architecture:* his theory of the origin of the arch, 109
Virgil, first foreign imitator of Homer, 42; compared with Milton, 46
*Æneid:* M. Arnold compares style with Milton's, 47; Dryden's translation, 53
*Eclogues:* 24
*Georgics:* 24
Vitruvius, 104

W

Wagner, Richard, turned natural defect into success, 87; effect of his attempt to combine poetry and music, 136; effect of his music on morals, 138, 139
*Tristan and Isolde:* 139
War, between Hellenic peoples: weapons and prisoners, 199
Weem of Scale, beehive huts at, 100
Whitelaw's *Sophocles*, 64
Wilamowitz, on *Persians* of Timotheus, 39
Wills or testaments, 194-197
Women's rights, 181
Wordsworth, least Greek of nineteenth-century poets, 57; illuminated by Plato, 57; and Pantheism, 228, 229; immortality of soul, 242, 243
*Excursion:* 40, 57
Wyse, William, of Trinity College, Cambridge, 195

X

Xanthus the Lydian, historian, 71
Xenophanes, founder of school of Elea, 221; doctrine of, 222
Xenophon, historian, 79
*Cyrus:* 94
*Hiero:* picture of gloom, 116

Z

Zeno, Eleatic, theory of sound, 225, 226
Zeno, the Stoic, 245
Zoölogy promoted by Aristotle, 171

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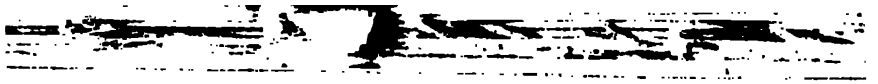

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